A STUDY OF OFFICER'S USE OF LEADERSHIP SKILLS LEARNED IN THE NAVY'S INTERMEDIATE OFFICER LEADERSHIP COURSE

By

William F. Conroy III

A dissertation submitted in partial fulfillment

of the requirements for the degree of

Doctor of Education

University of San Diego

2001

Dissertation Committee

Robert Donmoyer, Ph.D., Director
Fred Galloway, Ed.D.
Dan Miller, Ph.D.

UMI Number: 3007287

UMI®

UMI Microform 3007287

Bell & Howell Information and Learning Company
300 North Zeeb Road
P.O. Box 1346
Ann Arbor, MI 48106-1346

UNIVERSITY OF SAN DIEGO
SCHOOL OF EDUCATION

CANDIDATE'S NAME: William F. Conroy III

TITLE OF DISSERTATION: A STUDY OF OFFICER'S USE OF LEADERSHIP SKILLS LEARNED IN THE NAVY'S INTERMEDIATE OFFICER LEADERSHIP COURSE

APPROVAL:

Robert Donmoyer, Ph.D., Director
Chair/Co-chair

Fred Galloway, Ed.D.
Member

Dan Miller, Ph.D.
Member

DATE: 2 May, 2001

RECEIVED

DEC 1 2000

PROVOST-USD

PROTECTION OF HUMAN SUBJECTS: 17

#2000-12-026

Committee on the Protection of Human Subjects
University of San Diego

FORM A - PROPOSAL COVER SHEET

To be completed for all research involving human subjects conducted at the University of San Diego, and for all research involving human subjects conducted by or under the direction of any employee or agent of this institution in connection with her/his institutional responsibilities, including research conducted at or in cooperation with another entity. This form must be attached to research proposals submitted to the committee.

1. Title of research: A STUDY OF OFFICERS' SKILLS LEARNED IN THE NAVY'S INTERMEDIATE OFFICER LEADERSHIP COURSE

2. Will the subjects in this research be at risk? YES X NO___

   Subjects at risk means any person who may be exposed to the possibility of injury, including physical, psychological, or social injury as a consequence of participation as a subject in the research or belonging to populations identified as at risk groups.

3. In the course of this research, will:

   a. Questionnaires, personality tests, or inventories be administered? YES XX NO___

   b. Subjects include any of the following (check all that apply)?:
   Minors___ Aged___ Mentally Disabled Persons___
   Fetuses___ Prisoners___ Pregnant Women___
   USD Employees or Students ___ Members of Minority Groups XX
   Persons Known to Have AIDS___

   c. Tissues, body fluids, or other organic materials collected for other purposes be used? YES___ NO XX

   d. Data collected for other purposes be used? YES___ NO XX

   e. Informed consent obtained in accordance with USD's human subjects policy? YES XX NO___

   f. The risks to the subjects be outweighed by the potential benefits derived from the research? YES XX NO___

The issues identified above should be addressed in the proposal submitted to the Committee on the Protection of Human Subjects (See Appendix 1, CPHS Document).

PROTECTION OF HUMAN SUBJECTS: 18

FORM A continued:

4. Anticipated date on which data collection will begin: 15 DEC 00

I agree to follow the procedures with respect to safeguarding the rights and welfare of human subjects in this research as established by the University of San Diego.

William J. Kim — 29 NOV 00

Researcher (Signature) — Date

Robert Dunn — 11/29/00

Faculty Advisor if Researcher is Student (Signature) — Date

The project described above has been approved by the Committee on the Protection of Human Subjects.

Donald T. McClain — 12/4/00

Chair, Committee on the Protection of Human Subjects (Signature) — Date

PROTECTION OF HUMAN SUBJECTS: 19

Committee on the Protection of Human Subjects
University of San Diego

FORM B - EXPEDITED REVIEW

I (we), the undersigned, agree that the research to be conducted by WILLIAM F. CONROY III

entitled A STUDY OF OFFICERS' SKILLS LEARNED IN THE NAVY'S INTERMEDIATE OFFICER LEADERSHIP COURSE

does not put any human subject at risk, and should be approved by expedited review.

Robert [illegible]
Faculty Advisor if Researcher is a Student

11/29/00
Date

[illegible]
College/School/Administrative CPHS Representative

29 NOV 00
Date

ABSTRACT

The U.S. Navy's present-day leadership training program, referred to as the Leadership Continuum, provides for leadership training for all enlisted personnel and officers at initial entry into the naval service and at designated career milestones until retirement. The Leadership Continuum evolved from a series of formal Navy leadership training programs dating back to the late 1970s.

The Navy has expended a considerable amount of fiscal resources over the past 20 years in an attempt to provide quality leadership training to its personnel. However, past studies have revealed that leadership training course graduates are provided with little to no incentives by their supervisors to utilize the leadership skills learned after they returned to their jobs. This study analyzed survey responses from Intermediate Officer Leadership Course (IOLC) graduates to determine whether the problem observed in the past continued to be a problem in the contemporary Navy context. Specifically, the study attempted to determine what barriers and incentives graduates encountered that either hindered or encouraged their use of acquired IOLC leadership skills back on the job.

Descriptive statistics were used to analyze and compare the distributed frequency of responses among the various sub-groups. An analysis of variance (ANOVA) was used to test for statistical significance between the sub-groups' responses. To reduce the possibility of revealing false-positive findings, all statistically significant ANOVA results were evaluated by both the Liberal Statistical Difference (LSD) and the Scheffe Post Hoc tests.

The findings of the study revealed that the majority of respondents were able to utilize leadership skills acquired during IOLC on the job. Attempts to utilize Command Climate skills, however, were somewhat problematic when compared against the other three IOLC sub-units studied (Leadership Models, Situational Communications and Delegation). Female IOLC graduates took longer, on average, to apply acquired leadership skills on the job compared to the male graduates. The barriers most frequently identified by IOLC graduates that hindered their use of acquired leadership skills on the job was resistance to change from subordinates and peers. The incentives identified most frequently by IOLC graduates when attempting to apply acquired leadership skills on the job were (a) open lines of communications with subordinates and

immediate superiors and (b) receptiveness from subordinates. A number of findings about relationships between skill use on the one hand and contextual or demographic variables on the other were judged to be statistically significant by both the LSD and the Scheffe Post Hoc tests.

DEDICATION

To my wife Linda for her love, support and understanding during the countless hours I expended throughout this epic undertaking.

ACKNOWLEDGEMENTS

I would like to acknowledge and thank my dissertation director, Dr. Robert Donmoyer, and my dissertation committee members, Dr. Fred Galloway, and Dr. Daniel Miller, for their professional guidance. I would also like to thank Dr. Janet Littrell, who was my advisor during the first year of my pursuit of this doctoral degree; Sr. Terri Monroe, RSCJ, for her type of leadership style that enabled me to grow immensely during the second year of my doctoral studies; Lieutenant-Commander Kate Janac, a fellow doctoral student who assisted me with my search for a dissertation topic; the Director of the Navy Leadership Continuum Division, Chief of Naval Education and Training, Pensacola, FL for allowing me to conduct the study; the staff of the Naval Leader Training Unit, NAB Coronado, CA for their encouragement and administrative assistance; Christian Schumann, for his administrative assistance, program guidance and friendship over the past year-and-a-half; and, to Andre Murphy, a fellow doctoral student and U.S. Naval Officer for his friendship and encouragement over the past thirty-two months.

TABLE OF CONTENTS

LIST OF TABLES

CHAPTER 1 INTRODUCTION

The Navy Leadership Continuum, consisting of eight leadership training courses for officers and enlisted personnel, is a career-long continuum of Navy leader development opportunities from recruitment to retirement. Each year, over 50,000 Navy personnel attend one of the courses that are part of the Navy Leadership Continuum. The courses were developed by the Navy with the intention of making them relevant to Navy contexts and skills based (Chief of Navy Education and Training [CNET], 2000a).

These leadership training courses are built around four major themes: values; responsibility, authority, and accountability of leadership; unity of command; and continuous improvement. Periodically, formal leadership training is reinforced during other types of training such as warfare/specialty training, annual training of all service members, and training for specific professional assignments. To ensure consistency of training while eliminating redundancy, current education and training programs that include leadership topics are being aligned

with the concepts taught within the continuum's curriculum (CNET, 2000a).

The Navy, in fact, has placed significant emphasis on the leadership continuum by requiring U.S. Navy service members to attend the appropriate leadership training course at specific career milestones and is expending vast fiscal resources conveying navy officers and enlisted personnel around the world to participate in continuum-related training (Chief of Naval Operations, 1999).

Background to the Study and Problem Statement

The Leadership Continuum is the latest in a long line of training initiatives developed by the Navy. The Navy has, in fact, continually been revising its leadership training based on feedback received from U.S. Navy personnel surveys and from studies conducted by civilian research firms such as McBer and Co (Duncan-White, 1997). As a result of these past surveys and studies, the Navy has expended much effort in an attempt to provide the optimum training possible.

Past studies on the effectiveness of leadership training courses have suggested that the 50,000-plus graduates per year often do not have an opportunity to apply leadership skills acquired in training programs on

the job (Foley, 1983; Cissell & Polley, 1987; Naval Training Systems Center, 1988; Glenn, 1988). Over 70 percent of the petty officers graduating from the Leadership and Management Education and Training (LMET) course surveyed after they were back on the job, for example, indicated that their training was of "great value" or "very great value" in helping them perform the leadership and management aspects of their jobs. However, they also indicated that there was insufficient support for furthering their leadership skills development on the job after completion of classroom work (Naval Training Systems Center, 1988). Earlier studies of graduates of Navy leadership training programs have also revealed little or no reward system for using the leadership skills on the job (Foley, 1983; Naval Training Systems Center Orlando FL, 1988; Cissell & Polley, 1987).

One of the last studies to investigate whether or not participants in leadership training programs had an opportunity to use what they learned on the job and be rewarded for such use was conducted in 1990 by the Navy Personnel Research and Development Center, San Diego, CA (Wilcove, 1992). Wilcove's study revealed that 60 percent of the officer respondents and 53 percent of the enlisted respondents indicated that they had been able to apply some

of their most recently acquired leadership training skills on the job.

The most recent study was conducted in 1999 by Terrie N. Lohmeyer, a naval officer attending San Diego State University, of graduates of the Intermediate Officer Leadership Course (IOLC). One of the purposes of Lohmeyer's study was to ascertain if the knowledge the graduates acquired during the leadership course was utilized in their current leadership roles back on the job. Lohmeyer's study revealed that IOLC "students do, at least to some extent, use the information taught in the course once they return to the work site" (Lohmeyer, 1999, p.24.). Lohmeyer also recommended, however, that additional research be conducted to further explore (a) if graduates did or did not modify their leadership behavior after IOLC participation and (b) the role organization and culture play in encouraging or hindering behavioral changes on the job.

Purpose of the Study

The purpose of this study was to obtain feedback from recent graduates of the U.S. Navy's Intermediate Officer Leadership Course (IOLC) on (a) opportunities to use skills learned during IOLC training in their leadership behavior,

and (b) how their managers responded when the graduates' attempted to use the leadership skills learned during IOLC training.

The IOLC course is one of four leadership-training courses for officers currently available within the Navy Leadership Continuum. It consists of seven units and 32 sub-units of instruction. These various components are listed in Appendix A and are discussed in the Literature Review section, chapter 2 of this dissertation. Four of the 32 sub-units -- Leadership Models, Situational Communications, Delegation, and Command Climate - were the focus of this research.

Research Questions

The following research questions guided my study:

1. Do graduates believe that they were able to use their skills on the job?
2. If so, approximately how much time had elapsed after completion of IOLC before the graduates exercised the leadership skills acquired during the course?
3. What are the IOLC graduates' perceptions of their bosses' attitudes toward their using the leadership skills learned during the leadership training course? More specifically, do graduates perceive that their

bosses prevent, discourage, encourage, or require the use of graduates' newly acquired leadership skills back on the job, or do graduates perceive that their bosses take a neutral stance?

4. What factors (barriers or incentives) seem to be associated with skill use across the four IOLC sub-units?
5. Do the above answers vary depending upon demographics (gender, race, line/staff officers, etc.) and contextual variables (4 IOLC sub-units, shore/sea duty, active duty/reserve component, etc.)?

Methodology

The methodology of this research was quantitative. The study employed a survey design. The research instrument used in this study was a mail-out questionnaire. The sample consisted of 505 naval officers who completed IOLC training from July 2, 1999 to June 30, 2000. Since the survey was never previously tested, a two-phase pilot study -- using Dillman's (2000) cognitive interviewing and retrospective interviewing techniques -- was performed on ten IOLC graduates; and, the pilot work was qualitative in nature.

Descriptive statistics were used to answer research questions one through four in order to display variation of responses between the several sub-groups. Inferential statistics was employed to answer research question number five via an Analysis of Variance (ANOVA) to see if the responses between the respondent sub-groups had statistical significance.

Assumptions of the Study

Based on the review of the literature, this researcher assumed that there were barriers on the job that precluded the graduates from using their acquired leadership skills. This researcher also assumed that there were few incentives, if any, that encouraged IOLC graduates to use their leadership skills on the job. However, if there were any incentives that did exist, this researcher hypothesized that such incentives were found among shore-based commands rather than sea-going units because the tempo of operations is usually more demanding and fast-paced (especially during the deployment work-up cycle) with sea-duty commands. Based on 23 years of naval experience, this researcher hypothesized that the opportunity for IOLC graduates to utilize acquired leadership skills on the job while in a sea duty status could be negatively impacted because there

would be less discretional time to experiment with new leadership methods.

This researcher also hypothesized that this study would reveal that the majority of the IOLC graduates would have bosses that have either a "discouraging" or "neutral" attitude toward allowing them to use their newly acquired leadership skills on the job. This researcher also hypothesized that there was little evidence of any type of a reward system throughout the fleet for encouraging the graduates to use their leadership skills on the job.

Significance of the Study

The results of this study will be used to inform the CNET of the IOLC graduates' perceptions of their bosses' overall attitudes regarding their subordinates use of leadership skills outside of the classroom. This study also revealed the incentives that led to the graduates' change in their leadership behavior and whether, in fact, graduates perceived that any on-the-job changes occurred.

If the results suggest problems, this study could prompt the Navy's senior leadership to consider reevaluating and, if necessary, revising the Navy's Leadership Continuum's curriculum. The results of this study could also lead to the CNO and CNET mandating that

their fleet commanders positively reinforce the use of their subordinates acquired leadership skills when they return to their respective commands after completing leadership training. Without the active support from the Navy's senior and middle management, the successful use of acquired leadership skills in the fleet will be significantly minimized, thus, negatively impacting the leadership growth within the U.S. Navy. According to Joseph Olmstead in his 1980 report on leadership training, "There is sufficient evidence to conclude that leadership can be taught when training is sincerely deemed important by management's [sic]" (p.91).

The Chief of Naval Education and Training (CNET) expends vast fiscal resources defraying the leadership training program's overhead costs, including travel, lodging and perdiem for the majority of the IOLC course participants. In addition, the Naval Leadership Continuum is a high priority of the Chief of Naval Operations (CNO) (Admiral Clark), and, both the CNO and CNET should be informed about whether the objectives of the Naval Leadership Continuum are being met.

In addition, past studies indicate that the Navy leadership participants' use of competencies learned during the course deteriorates as time elapses due to non-use

(Cissell & Polley, 1987; Duncan-White, 1997). This information may provide the CNO and CNET with the motive to revise the leadership training curriculum to make it as relevant to the graduates' job as possible. This study could also lead to further studies on a wider scale to evaluate the attitudes and perceptions of graduates from the other seven leadership continuum courses.

Delimitations and Limitations of the Study

One of the delimitations of this study is the fact that the researcher only sampled IOLC graduates from the Navy's West Coast NLTU site located at NAB, Coronado, CA. Even though a small portion of IOLC graduates have subsequently transferred to an East Coast activity after completing formal leadership training, the percentage was small as compared to the majority of graduates who remained on the West Coast.

Another delimitation is that the study primarily focused on the IOLC graduates' perceptions of their immediate superiors and not the potential negative biases that some IOLC graduates might have regarding formal leadership training and their unwillingness to utilize the acquired leadership skills on the job. An attempt to counter this delimitation was made by the researcher by

including "resistance to change (self)" as one of the available choices listed on the research instrument for barriers encountered when trying to utilize the acquired skills learned on the job.

Also, since the study results are based on the perceptions IOLC graduates have of their superiors' attitudes toward use of their leadership skills, these perceptions could reflect the lack of chemistry between the IOLC graduate and his or her boss rather than what the questionnaire attempted to measure: opportunity and encouragement to practice skills learned in leadership training on the job.

A potential limitation to the study is the researcher's assumption, based on the review of the literature (Cissell & Polley, 1987; Duncan-White, 1997) that IOLC graduates' leadership effectiveness would be enhanced if acquired leadership skills were applied on the job at the earliest convenience. The opportunity for IOLC graduates to employ acquired leadership skills on the job might not present itself until several weeks or months after course completion. Some IOLC graduates might opt to spend more time observing their subordinates and superiors' personality traits in certain situations in order to employ an acquired leadership skill when it would have the most

effect. In addition, integrating newly acquired skills into a work context could take additional time for IOLC graduates who initially report to their work sites. IOLC graduates might choose first to obtain a degree of trust and rapport with their supervisor and subordinates before attempting to use their newly acquired leadership skills on the job. And finally, some IOLC graduates were unable to apply their newly acquired leadership skills on the job because they were not placed in a supervisory role after completion of leadership training.

Definition of Terms

1. Command - "A military organization with an officially designated commanding officer. A command may range in size from less than 50 to over 5000 personnel. A command may also be either a surface ship, a submarine, an aviation squadron, or a shore organization." (Glenn, 1987, p.6.).
2. Unit - Operational organization, frequently used interchangeable with "command" or "organization"." (Glenn, 1987, p.10.).
3. Commanding Officer - "The senior person of a command who is officially charged with the authority,

responsibility and accountability for the management of the command". (Glenn, 1987, p.7).

4. Executive Officer - The officer second in command of a naval organization (Merriam-Webster, 1985).
5. Department Head - "The senior officer within a major functional segment (department) of a Naval Command, such as Administration, Operations, Weapons, Communications or Supply". (Glenn, 1987, p.7.).
6. Supervisor - "One who directs the work of one or more employees who have no supervisory responsibilities of their own; also referred to as first-line supervisor." (Glenn, 1987, p.9.).
7. Boss - One who exercises authority and control. One who supervises or directs workers (Merriam-Webster, 1985).
8. Human Resource Management - The field of activity established in 1973 concentrated in the areas of training, education and personnel development concerned with providing quality control toward ensuring the integrity of various Human Goals Programs (Glenn, 1987; Foley, 1983).
9. Leadership Competencies - A listing of 16 critical skills, abilities and skills identified by two extensive research studies conducted with fleet

personnel by McBer and Co. in 1977 and 1978 (Mansfield, 1983).

10. Navy Leadership Continuum - A career-long continuum of Navy leader development, from recruitment to retirement consisting of four each, officer and enlisted leadership training courses. (Chief of Naval Education and Training, 2000).
11. Manager - One who manages and directs a business or enterprise (Funk & Wagnalls, 1983).

CHAPTER 2 REVIEW OF THE LITERATURE

There is a fairly extensive literature on both the history of leadership training programs in the Navy and the effectiveness of the programs offered. This literature was alluded to in the problem statement articulated in the previous chapter. Here, the major ideas from both these bodies of literature are briefly summarized.

Historical Background

In 1970, the Navy attempted to streamline human resource management. Leadership training received attention as part of this streamlining effort. The N-Man book (Navy Optimum Means of Integrating Men and Mission), a leadership training tool for Navy leaders using a seven-step command development model, was constructed and incorporated into the Navy's "Command Development" course (Lewis, 1990). The book was based on Blake and Mouton's view of leadership which conceptualized leadership in terms of two concerns: (a) concern for people and (b) concern for production (Robbins, 1994).

The N-Man book's underlying assumption was that self-awareness and motivation to change should be sufficient to

improve naval personnel's leadership skills. Foley (1983) notes, however, that this course was criticized for being rigid, idealistic, and simplistic. Critics claimed that the N-Man book did not equip Navy leaders with specific procedures to demonstrate a high level of concern for both personnel and achievement even though it encouraged them to do so. This criticism, along with the embarrassment of a pending lawsuit by Blake and Mouton regarding the Navy's adoption of their model, prompted the Navy to drop this approach (Foley, 1983).

The approach was replaced by an initiative called Leadership Management and Training (LMT). According to Foley (1983), "LMT was based largely on Transactional Analysis theory which had gained currency in civilian sectors" (p. 29). Transactional leaders, according to Burns in his 1978 book, Leadership, "base their influence on an exchange relationship between leaders and followers" (Thomas, 1998, p. 61). Consequently, the focus of this training was on increasing the participant's knowledge of pertinent human resource management information, crisis management, problem solving, interpersonal communications, management and motivation theory, organizational development, authority, accountability and responsibility (Glenn, 1988).

Foley (1983), notes that LMT was exceedingly popular; this popularity was also its undoing, however. To accommodate high demand, Commanding officers (CO's) established bootleg LMT courses within their own commands due to their frustration with limited quotas at the authorized training sites. As a result, the COs achieved almost 100 percent attendance due to their greater flexibility in scheduling their personnel for leadership training courses (Foley, 1983). By 1976, 167 Leadership and Management courses were being taught. However, only 15 of the 167 leadership training courses were authorized (Foley, 1983). "Students rarely knew whether they had attended an authorized course or not, and much of their increasing criticism of LMT was ascribed to these bootleg courses," Foley (1983, p. 30) writes. LMT courses had at least one other significant problem: Values and attitudes were emphasized instead of behaviors (Mansfield, 1983).

Because of the problems with the LMT program, the Navy decided to develop leadership courses based on the skills, knowledge, and abilities demonstrated on the job by officers (Foley 1983; Duncan-White 1997). This led the Navy to adopt a research-derived competency-based training approach. The research was conducted by the Harvard affiliated McBer and Company, a consulting firm based in

Boston, MA founded in 1970 by Dr. David C. McClelland and David Berlew (Foley 1983; and Cissell and Polley 1987). The company conducted research to uncover Navy leadership and management competencies (Duncan-White, 1997) using the methodology which McClelland had refined during previous studies within the civilian industrial community (Foley, 1983). In essence, the methodology involved gathering and analyzing self reported incidents of success and failure in leadership situations by individuals who supposedly were exceptional leaders and those who were not successful leaders. Eventually, 16 competencies were identified and courses were created to "teach" these competencies to officers and enlisted personnel. By the end of 1983, LMET had replaced the approximately 167 courses/course sequences that were teaching some aspect of basic leadership and management to Navy personnel (Arnold 1980; Duncan-White 1997).

LMET changed somewhat over the next ten years. These revisions included name changes: LMET first became the Navy Leader Development Program (NAVLEAD) and later the Naval Leadership Continuum. The initial changes were, at least in part, a response to a very real problem: the initial momentum to produce and conduct the courses was not maintained. In time attendance declined in both officer

and enlisted courses. By 1988, LMET was attended by only about 25 percent of the senior enlisted personnel due to a Navy policy stipulating that only personnel en route to a fleet (at sea) job could attend LMET (Duncan-White, 1997). This policy reduced training opportunities, particularly for Navy women who tended not to be assigned to sea duty as frequently as men. Outside of pipeline courses (initial entry training), officer attendance at all courses was low, and many of those attending were not the targeted audience.

The course was especially poorly attended by some subgroups within the Navy. Duncan-White (1997) notes: "The aviation community had some of the worst attendance records, with less than 15 percent of eligible junior officers attending the course" (p. 6).

A complete review of the way the Navy developed leaders was ordered by the Chief of Naval Personnel (CNP) in December, 1988. Duncan-White (1997) summarizes the conclusions emerging from this review:

> The findings of that Naval review revealed that, while high-quality leadership training was provided, it missed most of the Navy populations and that instead of being progressively complex and challenging, it tended to be redundant (p. 6).

In response to the Naval review findings, a somewhat revised leadership initiative began in 1989: NAVLEAD. In the NAVLEAD initiative, leadership training courses were based on Navy core values and basic leadership principles. These no frills courses were designed to be relevant on the job through job-related simulations (Duncan-White, 1997, p. 7).

A subsequent study of NAVLEAD (United States Navy, 1993) led to the Zero-Based Training and Education Review (ZBT&ER) Board's (the group that was chartered by the Under Secretary of the Navy in January, 1993) examination of all Navy shore-based training and education (Duncan-White, 1997). The study concluded that the leadership training was "reactive, nonadditive, optional, and nonstandard" (Duncan-White, 1997, p. 1). Many of the same criticisms of NAVLEAD's predecessor initiative were now applied to NAVLEAD. For example the board noted that the forty-hour division officer NAVLEAD course was attended by less than 50 percent of the officers who were eligible, and attendance still varied widely by community (surface, aviation, nuclear, etc.). The Board, according to Duncan-White (1997), recommended a number of revisions to leadership training. The recommended revisions included mandatory training prior to promotion and advancement and

key duty assignments; central management and budgeting for leadership education and training; and a progressive, sequentially organized curriculum built around four general topics: people, managerial skills, organizational values, and a vision for the future (Duncan-White, 1997). These ideas were implemented in various ways during the 1990s.

There were in fact, two major initiatives involving Navy leadership training during the 1990s. One involved incorporating the concept of Total Quality Management (Duncan-White, 1997) (relabeled Total Quality Leadership by Admiral Kelso) into Naval Leadership training. The other was more comprehensive and involved establishing a continuum of related courses. It is this second, more comprehensive initiative, the Navy Leadership Continuum, which is the focus of the proposed dissertation.

The Navy Leadership Continuum, a series of eight courses designed for mid- to senior-level enlisted personnel and officers at key intervals in their careers, was approved in 1994 by the Chief of Naval Operations (CNO) (Admiral Kelso). These leadership continuum courses are tailored for officers at the basic (branch officer and division officer), intermediate (aviation second sea tour and department head), advanced (aviation department head and executive officer), and command (aviation executive

officer and commanding officer) levels (Duncan-White, 1997). Attendance at the enlisted courses is mandated for enlisted personnel upon selection for advancement. The purpose of the leadership continuum is to provide consistency and continuity of training in leadership and management topics across all Navy communities.

Evaluation findings

The various leadership evaluation initiatives have been studied and evaluated and this research has produced a number of interesting findings. The findings for some of the Navy's earlier leadership training efforts were not particularly encouraging.

Arnold (1980), for instance, conducted a study on the effect LMET had on the subordinates' attitudes about their supervisor's leadership ability after graduation. As a result of his study, Arnold concluded "that there was no significant change in the attitude of the nonsupervisory [sic] crewmembers of the USS Kitty Hawk toward supervisory leadership [by recently trained leaders] from 1975 to 1979" (Arnold, 1980, p. vi).

A year after Arnold's report was released, a pilot study was conducted by Vandover and Villarosa to discover any improvements over non-graduates in the knowledge or

behavior of LMET graduates. The study involved interviewing a cross section of 51 LMET graduates and their immediate supervisors and subordinates from 13 different commands. The study revealed "no systematic behavior changes" (Vandover & Villarosa, 1981, p.88).

Studies of more recent efforts have been somewhat more encouraging. A Navy personnel survey and an analysis of educational and training issues was conducted in 1990 to provide policy makers with personnel feedback on a variety of key issues including leadership training. A total of 22,710 surveys were mailed in the first two weeks of October 1990 to enlisted and officer personnel around the world. A total of 11,809 questionnaires were completed and analyzed; this was a return rate of 52 percent (Wilcove, 1992, p. vii). Wilcove (1992) reported the following survey results that pertained to leadership training:

1. Seven out of 10 enlisted respondents viewed the quality of their most recent leadership course as good or very good.
2. The greatest number of enlisted respondents (53%) believed that they had been able to apply some of their most recent leadership training in the field.
3. While half of the enlisted respondents believed that leadership training courses in the Navy had

helped them to perform their jobs better, one-third disagreed, and the rest reported mixed feelings.

4. Officers did not rate their last leadership course as favorably as enlisted personnel, with slightly more than half judging it to be good or very good.
5. On the other hand, more officers than enlisted personnel (60% versus 53%) believed that they had been able to apply some of their recent leadership training in the field.
6. Officers were split in their opinions on whether leadership training in the Navy had helped them to perform their jobs better, with 41 percent agreeing, 45 percent disagreeing, and the rest reporting mixed feelings (p. vii-viii).

One question on which findings are somewhat contradictory relates to whether or not graduates of leadership training programs use -- and are encouraged -- to use the skills they learned back on the job. Much of the data generated are not encouraging. Cissell and Polley, the two U.S. Naval officers who conducted a study on LMET and its relationship to shipboard effectiveness and readiness, for instance, write,

> Competencies and behaviors learned in [sic] LMET may not be reinforced (rewarded) in the fleet. Behaviors

> not at least intermittently rewarded (through recognition and approval) tend to extinguish rapidly. (Cissell and Polley, 1987, p. 40).

Cissell and Polley go on to claim that no argument for a significant measure of degree of command support for LMET could be made on the basis of the evidence they had collected.

On the other hand, a study of the Navy Chief Petty Officer (pay grade E-7) leadership graduates of the Navy Leadership Continuum (the successor to NAVLEAD) indicated that the course was useful and adequate back in the workplace 12 months after participants had completed the course (Duncan-White, 1997).

Clearly there was a need to examine whether students have an opportunity -- and are, in fact, encouraged to apply what is learned -- in current leadership training courses on the job. As Lohmeyer (1999) writes:

> It is possible that the student's leadership training would be beneficial on the individual level but not productive on the organizational level since the student's command culture may be such that it does not foster good leadership practice. The student may then become frustrated and disillusioned with the leadership training received (p. 12-13).

This study investigated whether the situation envisioned by Lohmeyer was indeed occurring in the current Naval context or whether there was, in fact, compatibility between what was taught in Leadership Continuum training courses and various aspects of Navy culture.

CHAPTER 3 RESEARCH DESIGN

Research Design Overview

The methodology of this research was quantitative; specifically, it employed a survey design. The research instrument used in this study was a mail-out questionnaire. The rationale for using this type of survey instrument was that it provided access to the IOLC graduates who were stationed throughout the United States of America and deployed overseas using the most economical means possible. Due to the IOLC graduates being geographically dispersed throughout the continental U.S and overseas, it would of been impractical, prohibitively expensive and exceedingly time-consuming to attempt to conduct a face-to-face interview with the respondents. Furthermore, the cost of first class postage for administering mail-out surveys was considerably less than trying to access the respondents by telephone (Rea & Parker, 1997; Dillman, 2000).

The Survey Instrument

The survey instrument was adapted from a sample questionnaire found in the second edition of Ronald

Kirkpatrick's (1998) book, Evaluating Training Programs (p. 197). Several of Kirkpatrick's survey questions had to be revised or omitted in order to answer the research questions for this study. A few additional revisions were made to the questionnaire after receiving feedback from peers and from the professor of a survey design course I completed as part of the doctoral-level curriculum and as a result of pilot testing.

The survey, in its current revised form, contains four sets of questions and two additional individual questions. The first set of questions (survey questions 1A through 4A), was used to ascertain how much time had elapsed between the graduates' return to their jobs and when (if at all) they were able to apply their leadership skills.

The second set of questions (1B through 4B) was used to ascertain the barriers that obstructed the IOLC graduates' use of leadership skills taught on the job. The third group (1C through 4C) was used to discover what incentives were provided to encourage IOLC graduates to use the leadership skills taught in training at work.

There were two additional questions. One of these (question number five) was used to ascertain the percentages of respondents whose managers' attitudes either prevent, discourage, encourage, or require the use of

leadership skills used on the job, or had a neutral effect. The other question (number six) was a dichotomous question (Ary, Jacobs and Razavieh, 1996) with only two available responses, in this case yes or no. This question was used to find out the percentages of respondents who have access to available leadership-related resources (e.g. leadership textbooks and other relevant reference materials) on the job.

The last section (Part VI) of the research instrument contained ten demographic questions. The first question (number seven) was used to find out the position the respondent presently held in his or her command. Question number eight was used to ascertain the position the respondent's immediate supervisor held in his or her command. Question number nine was used to find out the type of duty (sea, shore, or other) the respondent has had during the majority of the time since graduating from IOLC.

The responses to questions seven through nine were used to search for possible patterns relating responses to the types of duty and positions held in order to assist Navy Leadership Continuum curriculum developers with determining where to concentrate their improvement efforts. In addition, the researcher will report to the staff of Chief of Naval Education's curriculum development

department about what levels of the Navy hierarchy are either encouraging or obstructing the graduates from utilizing acquired leadership skills on the job.

Question number ten was used to ascertain if the respondent is either a Line Officer (a naval officer who is eligible for a command at sea or a operational command ashore) or a Staff Officer (a naval officer who is not eligible for an operational command either at sea or ashore) and was used as a lead-in for question number 11. Question 11 is for the respondents who are line officers; its purpose was to ascertain line officers' specific career specialties. The line officers are further broken down into two categories: restricted line (more specialized field, i.e. Aerospace Maintenance, Oceanography, Intelligence, etc.) who are not ineligible for command at sea; and unrestricted line (naval officers who are eligible for operational command of a naval squadron or of a ship-of-the-line).

Question number 12 was used to ascertain the area of the naval service (i.e. supply, medical, dental, civil engineering, etc.) that the staff officers who participated in the study were from.

The answers to the above questions were used by the researcher to compare responses among the various occupations that made up the survey sample.

Question number 13 was used to discover if the respondents were on active duty (regular navy), are on reserve duty (serves only one weekend a month and for two consecutive weeks on an annual basis), were Training and Administration of Reserve (TAR) (personnel who do not serve aboard U.S. Naval Ships) or fit into some other category, such as a U.S. Navy Seal who returned to active duty after a brief hiatus for a predetermined period of time in an advisory capacity. Question number 13 was also used to compare answers among the various categories of respondents to see if there was a difference between the active duty Navy, the naval reserve or the TARs.

Question number 14 was used to ascertain the respondent's gender. The gender information was used to determine if there was a difference in the perceived utilization of acquired leadership skills between the male and female respondents. Question number 15 was added to the research instrument after completion of the pilot study to find out how long the respondents were assigned to their present command in order to make a connection if their responses to sections I through IV were influenced by their

actual time spent on the job after completion of IOLC training. The last question (number 16) was also modified after completion of the pilot study because the pilot study participants felt more comfortable answering a Department of Defense structured race/ethnic-related question rather than how it was previously designed. The rationale for the question was to ascertain the race of the respondents to see if there were any differences in utilization of acquired IOLC skills among people of different races/ethnic backgrounds. See Appendix B for a copy of the survey.

Pilot Process

A pilot study was performed (after the researcher obtained permission from the Committee of Human Subjects) with a small sample of respondents (ten) who have graduated from the IOLC over the past year. Both cognitive and retrospective interviewing (Dillman, 2000) was used during the pilot effort.

Cognitive Interviewing. The first five respondents were interviewed by the researcher on an individual basis. The respondents were asked to "think out loud" and convey to the interviewer everything that they were thinking while they were filling out the questionnaire. The purpose of this process was to ascertain if the respondents could make

sense of the questions, and if the respondents were making the same sense as the researcher was intending them to make. Dillman (2000) refers to this technique as "cognitive interviewing".

While filling out the survey instrument each respondent was gently probed by the interviewer whenever the he or she fell silent while contemplating the question. Examples of general probes used by the interviewer were: "What were you thinking?" "Could you tell me more about that?" "What did you mean by that?" "Could you describe that for me?" "Remember to tell me what you are doing." (Dillman, 2000, p. 143).

According to Dillman (2000), the potential downside to this interview technique is that the respondents' attention is divided between the questions and the interviewer, rather than being focused entirely on the questionnaire. In addition, the skipping of critical words that leads to wrong answers could have gone undetected as a result of the respondents reading more of each question more slowly than he or she would if he or she were alone at home while filling out the questionnaire.

The following revisions were made to the survey instrument as a result of the Cognitive phase of the pilot study:

1. Added three potential incentives (the response options "open lines of communication with subordinates," "receptiveness from subordinates", and, "the leadership models worked when used" were added to question numbers 1C, 2C, 3C and 4C that encouraged utilization of skills learned during IOLC training.
2. Introductions to Part I, Part II and Part IV were modified to include a short statement that described either a group exercise or additional information about the lesson topic in order to assist the respondent with remembering the particular lesson topic subject matter.
3. The terminology "boss/manager" throughout several sections of the research instrument was changed to reflect "immediate superior" to clear up confusion. A couple of the pilot study participants needed clarification to help them understand that the researcher's interpretation of boss/manager meant their immediate superior.
4. The title, "Branch Officer", was removed as one of the choices of job positions listed under question number seven, the question that asked about the respondents' current position. The rationale for

this change involved the fact that the title, "Division Officer," was already included as one of the possible choices, and, due to the relative seniority of the IOLC graduates, they were not likely to be assigned as a Branch Officer.

5. The title, "Director", was added to question number seven because it is a common position in the medical field.
6. Choice (b) of Question number 13 was modified from "reservist" to indicate the proper title, "selected reservist".
7. Question number 16, (race/ethnic background) was restructured to reflect the approved Department of Defense (DOD) format that was used in past surveys. The subsequent pilot study participants were more comfortable with the DOD version. The DOD structured race/ethnicity version (and web address) was provided to the researcher by one of the pilot study participants.
8. Choice (g) of question number 12 (Staff Officer Community the respondent (if applicable) was presently serving in) was changed to reflect the proper title of "Civil Engineer Corps" vice "Civil Engineering Corps".

9. The cover letter was modified to reflect that only the graduate researcher will know who responded to the survey and that it was the researcher who was listed on the cover letter as the person to be contacted for questions related to the survey instrument. The rationale for this revision was to assure the potential respondents that only the researcher had access to the completed questionnaires.

Retrospective Interviewing. To gain the maximum amount of feedback possible during the pilot phase, the interviewer also employed the "retrospective interviewing" technique (Dillman, 2000) with a second group of five respondents. During this interviewing process the respondents were asked to complete the survey instrument as if they were at home alone away from the influence of the interviewer. The interviewer observed the respondents filling out the questionnaire in an attempt to note any hesitations, confused expressions, erasures, skipped questions, or other behavior that would indicate a problem with understanding the survey instrument. When the respondent was finished filling out the questionnaire, the interviewer then asked questions about observed behavior that might have suggested a potential problem with the

survey instrument. According to Dillman (2000), the retrospective interview process could be especially useful in ascertaining navigational difficulties that arise from the way the questionnaire is constructed.

Dillman (2000) also mentions that a potential shortcoming related to the retrospective interviewing technique is that the respondents may display no outward evidence of being confused at critical points in the survey instrument. However, this problem can be addressed by asking a few supplemental questions such as: "Was it interesting?" "Was there any time that you wanted to stop answering?" "Did any of these questions offend you?" And, "would you have filled out this questionnaire if it had come to you at home?" (Dillman, 2000. P. 145). The following revisions to the research instrument were made as a result of feedback received during the Retrospective portion of the pilot study:

1. Additional instructions for Question numbers 1A, 2A, 3A and 4A were added to prompt the respondent to fill in the blank with a number and then to circle either days/weeks/months.
2. Question number 15 was added to the research instrument to ascertain how long the respondents were assigned to their present command. The

rationale for adding this question was to see if there was a relationship between non-utilization of acquired IOLC skills and the length of time the respondents were employed at their respective job sites.

3. Question number 6 was revised to include actual examples of IOLC reference material, (e.g., The Sit Lead II, the article and Leadership and the One- Minute Manager by K. H. Blanchard; The Transformational Leader by N. M. Tichy and M. A. Devana, etc.) in an attempt to aid the respondent with ascertaining if applicable reference material was on hand at the job site.
4. Question number 13, choice (c), was changed from "Temporary Active Reserve (TAR)" to reflect the correct title of "Training and Administration of Reserves (TAR)".
5. One additional option "I have encountered no incentives," was added to questions 1C, 2C, 3C and 4C (I have encountered the following incentives...).

Sample Selection

The sample was selected from IOLC graduates who attended leadership training at Naval Leader Training Unit

(NLTU), Naval Amphibious Base (NAB) Coronado, CA from 2 July 1999 to 30 June 2000. The NAB Coronado site was selected because the researcher attended the IOLC at that site and has been granted access to the sample population by the Chief of Naval Education and Training, Leadership Continuum Division, Captain Krull, USN.

Based on preliminary feedback received from the Student Records Office, Naval Leader Training Unit, Coronado, CA, the researcher intended to use a systematic random sampling method to select the sample. According to Rea and Parker (1997), systematic random sampling consists of choosing sample members from a randomly distributed list at fixed intervals (in this study, every second entry). After the researcher obtained the rosters of all IOLC participants from the previously mentioned time frame it was discovered that only 505 students had attended IOLC training rather than the "approximately 1,000 students" that the researcher was initially told had attended. After consultation with the researcher's dissertation committee it was decided that all 505 students would be included in the study. The rationale for this decision is detailed in the next section.

Confidence Level/Interval

According to Rea and Parker (1997), there are two items that are interrelated that the researcher should specifically address before determining the sample size: confidence interval and level of confidence. Confidence interval, according to Rea and Parker (1997), is "a probabilistic estimate of the true population mean or proportion based on sample data. It represents the margin of error, which indicated the level of sampling accuracy obtained" (p.233). The level of confidence is described by Rea and Parker (1997) as the risk of error the researcher is willing to accept in the study. When the researcher takes into consideration the time requirements, budget (Ary, Jacobs and Razavieh, 1996) and the magnitude of the consequences of drawing incorrect conclusions from the sample, he or she will usually opt for either a 95 percent level of confidence (five percent chance of error) or a 99 percent level of confidence (one percent chance of error) (Rea and Parker, 1997). According to the guidelines listed in Rea and Parker's 1997 book, Designing and Conducting Survey Research, a sample size of at least 218 respondents is necessary for obtaining a 95 percent level of confidence with a population size of 500. To ensure at least this

many respondents, the entire population was sent questionnaires.

Survey Implementation

In order to maximize the response rate, the researcher utilized the Dillman (2000) method as follows: (a) A brief pre-notice letter was sent to the 505 respondents a few days prior to the questionnaire. The pre-notice letter informed the potential respondent that an important survey was to arrive in a few days and that his or her response would be greatly appreciated (see Appendix C). (b) The questionnaire was sent (via first class mail) with a cover letter (see Appendix D), from the researcher emphasizing the importance of the survey and requesting cooperation, etc. (c) The mailing of a "thank you postcard" after one week of mailing the questionnaire to thank those who have responded and encourage others to respond was rejected by the Committee of Human Subjects because the postcard would of linked the name of the respondent with their corresponding code on the same piece of paper; consequently, this step was omitted by the researcher. And finally, (d) after five weeks, the researcher sent out another somewhat revised cover letter (see Appendix E) and

questionnaire via first class mail to those who have not responded.

Survey Response Expectations

The researcher hoped to obtain between a 50 to 70 percent response rate. According to Dillman (2000), those who used the total design method averaged response rates between 58 to 92 percent with an average of 74 percent. According to Babbie (1990) a 50 percent response rate is considered adequate; a 60 percent response rate is considered good and a 70 percent response rate is considered ideal.

Actual Survey Response Rate. One-hundred and sixty-seven completed mail-out questionnaires were received within five weeks of the first mailing. A second wave of 338 mail-out questionnaires were sent out via first class mail within five weeks from the date that the first batch of surveys were mailed. Over the next five weeks, 97 completed surveys were received, 22 of which were from the first mailing. A total of 75 surveys were received from the second wave of 338 mail-out questionnaires for a combined total of 264 completed responses. The overall response rate was 52.3 percent.

Quantitative Data Analysis

Descriptive Statistics. Descriptive statistics were used to answer research questions one through four. A descriptive analysis of the data was employed since the study compared percentages of respondents who answered the available range of response choices contained in the survey instrument. By using descriptive statistics, the researcher was able to organize, summarize, and then describe the responses obtained (Ary, Jacobs & Razavieh, 1996). Descriptive statistics has been the preferred method for analyzing data from the previous two Naval Leadership Continuum studies (Duncan-White, 1997; Lohmeyer, 1999).

Descriptive Statistics were also used to display variation across contextual and demographic variables. This researcher used descriptive statistics to highlight different responses between different sub-groups. For example, responses to questions 1A through 4A were used to determine the percentage of the sample that has or has not utilized the leadership skills learned during the four IOLC sub-units: Leadership Models, Situational Communications, Delegation and Command Climate. Questions 1A through 4A were also be used to compare the average time that elapsed

after the IOLC graduates completed leadership training to when they were able to apply their skills on the job.

Inferential Statistics. In addition to descriptive statistics, this researcher also employed inferential statistics in an attempt to find out if survey responses varied across demographic and contextual variables **in statistically significant ways** (see research question number five). For example, inferential statistics was used to examine and either reject, or fail to reject the Null Hypothesis (H_o) that there is no statistically significant difference between the use of acquired leadership skills on the job between IOLC graduates who are represented by the various sub-groups (e.g. gender, sea/shore duty, etc.).

Analysis of Variance. An analysis of Variance (ANOVA) was the statistical method used in this research for determining if there was a statistical significance between the average responses (means) between two or more groups (e.g. IOLC graduates on sea duty, shore duty and other) (Ary, Jacobs & Razavieh, 1996). For example, the responses to the first set of questions (1A-4A) in the survey were used to make comparisons across groups related to the mean time that elapsed from when the participants graduated from IOLC to when they were able to utilize their acquired

leadership skills back on the job. Table 1 illustrates an example of a One-Way ANOVA:

Table 1

	GROUP		
	Sea Duty	Shore Duty	Other
Mean Overall Scores	2.3 months	1.3 months	1.6 months
Standard Deviation (SD)	0.4	0.2	0.3

The goal of the above table was to make a single inference concerning the means of the 3 populations and to answer the question if the difference in the average (mean) time that elapsed from when the participants graduated from IOLC training to when they returned back to their jobs occurred by chance alone.

Two-Way ANOVA. A two-way ANOVA was also employed to compare two or more sample means between two independent variables (Huck & Cormier, 1996). For example, to compare the mean usage of acquired leadership skills between male and female graduates who are on sea, shore and other type duty a 2 X 3 ANOVA is illustrated as follows Table 2:

Table 2

TYPE OF DUTY

	Sea Duty	Shore Duty	Other Duty
Male	0.7	0.3	1.1
Female	1.4	0.5	0.6

The above table shows how each of the cells came into being by combining each level of gender with each level of sea duty. The goal of the above table is to answer the question if the difference in means between the various gender and types of duty occurred by chance alone.

CHAPTER 4 RESULTS

Introduction

As discussed in the previous chapter, descriptive statistics and inferential statistics were used to analyze the survey results. The survey was designed to answer the following research questions:

1. Do graduates believe that they were able to use their skills on the job?
2. If so, approximately how much time had elapsed after completion of IOLC before the graduates exercised the leadership skills acquired during the course?
3. What are the IOLC graduates' perceptions of their bosses' attitudes toward their using the leadership skills learned during the leadership training course? More specifically, do graduates perceive that their bosses prevent, discourage, encourage, or require the use of graduates' newly acquired leadership skills back on the job, or do graduates perceive that their bosses take a neutral stance?

4. What factors (barriers or incentives) seem to be associated with skill use across the four IOLC sub-units?
5. Do the above answers vary depending upon demographics (gender, race, line/staff officers, etc.) and contextual variables (4 IOLC sub-units, shore/sea duty, active duty/reserve component, etc.)?

The survey results will be reported in two parts. Part I will describe the characteristics of the data in terms of frequencies, means and standard deviations. This section describes characteristics of the survey respondents and responds to research questions one through four. Part II responds to research question number five and reports findings related to the null hypotheses articulated in the previous chapter.

Part I

Overall Characteristics of the Survey Respondents and Their Perceptions About Skill Utilization, Incentives and Barriers

The sample consisted of 508 U. S. Navy Officers who graduated from IOLC at NAB Coronado, CA from 2 July 1999 to 30 June 2000. Three of the mail-out questionnaires were

returned by the members with a note indicating that they could not participate in the study because they never had attended IOLC. The sample size was reduced accordingly to 505 graduates. Two-hundred-and-sixty-four IOLC graduates completed and returned the mail-out questionnaires for a response rate of 52.3 percent. According to Babbie (1990), a 50 percent response rate is considered adequate.

Out of the 264 respondents, 76 (28.8%) were female and 188 (71.2%) were male. There were a total of 342 males (67.7%) and 163 females (32.3%) in the survey population. Responses by gender will be presented in two ways, unweighted and weighted. The weighted data (Department of Education, 1999) will represent an estimate of how the entire population would have responded had every one of the 505 IOLC graduates completed and returned the survey instrument.

Utilization

Table 3 summarizes the graduates' assessment of whether or not they utilized acquired leadership skills across the four IOLC sub-units.

Table 3
Distribution of the Number of Graduates who Utilized Acquired Leadership Skills across the Four IOLC Sub-Units

IOLC Sub-Unit	Utilized/%	Not Utilized/%	Cum/%
Leadership Models	222/84.1	42/15.9	264/100.0
Situational	217/82.2	47/17.8	264/100.0
Communications			
Delegation	230/87.1	34/12.9	264/100.0
Command Climate	173/65.5	91/34/5	264/100.0

The following sub-sections summarize the graduates average utilization (in days elapsed since completing IOLC) and the range of days that elapsed prior to utilizing their newly acquired leadership skills across the four IOLC sub-units.

Utilization of Leadership Models' Skills. The first set of survey questions (survey questions 1A through 4A) were used to answer research questions number 1 and 2 (utilization of acquired leadership skills and the approximate time that elapsed after completion of IOLC training before the graduates exercised the skills). Descriptive statistics was employed to ascertain the frequency of graduate responses to the survey questions in questions 1A through 4A. As illustrated in Table 3, the survey responses revealed that 84.1% of the respondents had utilized the acquired leadership skills from the Sub-unit 1-6 (Leadership Models) after they returned to their work places. The range of responses indicated that it took from

one to 365 days after receiving IOLC training and returning to the work site before respondents employed the skills acquired in training. One-hundred-and-ninety-nine of the 222 respondents (89.6%) indicated that they had utilized the acquired skills within 90 days of completion of IOLC training. The average (mean) time between completion of IOLC and the opportunity to use Leadership Model(s) skills for the 222 graduates who reported using Leadership Model skills was 44.3 days.

Situational Communications. The survey responses revealed that 217 of the 264 respondents (82.2%) had utilized the acquired skills from Sub-unit 2-4 (Situational Communications) after completing IOLC training. The responses ranged from one to 300 days. One-hundred-and-ninety-eight (91.2%) of the graduates indicated that they had utilized the situational communications skills within 90 days. The mean of time by the 217 graduates who utilized the Situational Communications skills between completion of IOLC and the opportunity to use situational communications skills was 42.2 days.

Delegation. The survey responses revealed that 230 of the 264 respondents (87.1%) indicated that they had utilized the acquired skills from Sub-unit 3-1 (Delegation) after completing training. Two-hundred-and-three of the

230 respondents (88.3%) revealed that they had utilized the acquired skills within 90 days after completing IOLC. The mean time between completion of IOLC and the opportunity to use the Delegation skills was 48.0 days.

Command Climate. Of the 264 respondents, 173 (65.5%) indicated that they utilized the skills acquired from Sub-unit 5-4 (Command Climate) on the job. One-hundred-and-fifty-one (87.3%) of the graduates indicated that they had utilized the acquired command climate skills within 90 days after completing IOLC. The mean time between completion of IOLC and the opportunity to use the Command Climate skills was 55.3 days. A representation of the average (mean) days that elapsed between completion of IOLC training until the graduates utilized their acquired leadership skills on the job for Command Climate and the other 3 sub-units is presented in Table 4.

Table 4
Means in Average Elapsed Days Prior to Utilization of Acquired Leadership Skills across the Four IOLC Sub-Units

IOLC Sub-Unit	Mean		N	Std. Deviation
Leadership Models	44.3	days	222	57.0
Situational Communications	42.2	days	217	49.7
Delegation	48.0	days	230	67.8
Command Climate	55.3	days	173	81.8

Summary of Results. The results indicate that the vast majority of IOLC graduates who responded to the survey

instrument believed that they were able to apply their acquired leadership skills on the job. Out of the four IOLC sub-units, Delegation had the highest rate of utilization (230 respondents) while skills learned during the Command Climate sub-unit were perceived as having the lowest rate of usage (173 respondents). Thus, the answer to the first research question (Do graduates believe that they were able to use their skills on the job?) is yes for the vast majority of survey respondents.

The answer to the second research question (Approximately how much time had elapsed after completion of IOLC before the graduates exercised the leadership skills acquired during the course?) is summarized in Table 4. As this table indicates, the average elapsed days prior to utilization was the lowest for Situational Communications and the highest for utilization of the Command Climate skills. Once again, the Command Climate sub-unit appears to be the most problematic in terms of utilization opportunities.

Graduates' Perceptions of Their Bosses' Attitudes

Table 5 represents the distribution of the IOLC graduates' immediate superiors' attitudes regarding the utilization of acquired leadership skills on the job.

Table 5
Distribution of IOLC Graduates' Perceptions of Their Immediate Superiors Attitudes Regarding Skills Use of the Job

Perception	N	Percent	cum Percent
Preventing	3	1.1	1.1
Discouraging	18	6.8	8.0
Neutral	127	48.1	56.1
Encouraging	109	41.3	97.3
Requiring	7	2.7	100.0
Total	264	100.0	

Table 6 illustrates how bosses' attitudes impacted the time needed to apply skills from the four IOLC sub-units.

Table 6
Means for Average Elapsed Days Prior to Graduates' Skills Utilization by their Perceptions of Immediate Superiors' Attitudes Regarding Skills Use on the Job

		LEADERSHIP SUB-UNITS			
BOSSES' ATTITUDES		LEADUTIL	SITCOMU	DELEUTIL	CLIMUTIL
Preventing	Mean Days	37.0	10.5	14.0	14.0
	N	2	2	1	1
	Std. Deviation	32.5	5.0		
Discouraging	Mean Days	69.5	42.8	57.9	97.4
	N	17	12	17	12
	Std. Deviation	63.2	52.9	58.2	203.0
Neutral	Mean Days	51.6	45.5	53.8	53.5
	N	97	100	101	78
	Std. Deviation	64.0	52.5	76.0	64.6
Encouraging	Mean Days	34.1	39.3	41.2	52.9
	N	99	97	104	75
	Std. Deviation	46.6	46.3	61.1	66.5
Requiring	Mean Days	29.1	42.1	44.1	33.9
	N	7	6	7	7
	Std. Deviation	53.7	61.3	61.7	58.6
Total	Mean Days	44.3	42.2	48.0	55.3

N	222	217	230	173
Std. Deviation	57.0	49.7	67.8	81.8

Summary of Results. The data summarized in Table 5 responds to the third research question (What are the IOLC graduates' perceptions of their bosses' attitudes toward their using the leadership skills learned during the leadership training course?). Table 6 suggests the significance of supervisors' attitudes. Together, the two tables suggest the following: The vast majority, 236 of the 264 respondents (89.4% overall), reported that their perceptions of their bosses' attitudes were either "neutral" (48.1%) or "encouraging (41.3%). As indicated in Table 6, however, IOLC graduates with bosses that had "discouraging" attitudes reported, on average, that they were not able to utilize their acquired Command Climate skills until after 97.4 days had elapsed compared to 52.9 days for graduates with "encouraging" bosses. IOLC graduates whose bosses had "encouraging" attitudes reported usage of Leadership Model(s) skills more than 25 days prior to graduates who perceived that their bosses had "discouraging" attitudes.

Barriers that Hindered Skill(s) Usage

In order to answer research question number four, which focused on identifying barriers and incentives related to skill use, survey questions 1B through 4B (barriers) and questions 1C through 4C (incentives) were structured to allow the respondent to report multiple barriers and incentives (if applicable) that either inhibited or facilitated his or her use of acquired leadership skills on the job after completion of IOLC. Subjects' responses are illustrated in Tables 7 through 10.

Leadership Model Barriers. Table 7 summarizes the barriers to skill use on the job IOLC graduates identified for the Leadership Models Sub-unit.

Table 7
Barriers that Hindered IOLC Graduates' Usage of Acquired Leadership Model(s) Skills on the Job

BARRIERS	N (IOLC GRADUATES)
My immediate superior doesn't support	40
Resistance to change (self)	45
Resistance to change (peers)	61
Resistance to change (subordinates)	77
The ideas don't seem to work	7
Didn't learn anything new	23
Don't recall content	26
I have encountered no barriers	90
Other	31

Situational Communications. Table 8 summarizes the barriers IOLC graduates identified related to their

attempts to utilize newly acquired leadership skills learned during the Situational Communications Sub-unit on the job

Table 8
Barriers that Hindered IOLC Graduates' Usage of Acquired Situational Communications Skills on the Job

BARRIERS	N (IOLC GRADUATES)
My immediate superior doesn't support	13
Resistance to change (self)	27
Resistance to change (peers)	39
Resistance to change (subordinates)	48
The ideas don't seem to work	1
Didn't learn anything new	28
Don't recall content	30
I have encountered no barriers	136
Other	7

Delegation. Table 9 summarizes the barriers IOLC graduates identified related to their attempts to utilize newly acquired leadership skills learned during the Delegation Sub-unit on the job.

Table 9
Barriers that Hindered IOLC Graduates' Usage of Acquired Delegation Skills on the Job

BARRIERS	N (IOLC GRADUATES)
My immediate superior doesn't support	13
Resistance to change (self)	41
Resistance to change (peers)	35
Resistance to change (subordinates)	65
The ideas don't seem to work	7
Didn't learn anything new	23
Don't recall content	14
I have encountered no barriers	113
Other	18

Command Climate. Table 10 summarizes the barriers IOLC graduates identified related to their attempts to utilize newly acquired leadership skills learned during the Command Climate Sub-unit on the job.

Table 10
Barriers that Hindered IOLC Graduates' Usage of Acquired Command Climate Skills on the Job

BARRIERS	N (IOLC GRADUATES)
My immediate superior doesn't support	31
Resistance to change (self)	22
Resistance to change (peers)	48
Resistance to change (subordinates)	39
The ideas don't seem to work	9
Didn't learn anything new	19
Don't recall content	37
I have encountered no barriers	100
Other	30

Summary of Results. The data summarized in Tables 7 through 10 answer the first part of the fourth research question: What barriers seem to be associated with skill use across the four IOLC sub-units? The majority of respondents indicated that they encountered no barriers while attempting to apply their acquired leadership skills across the four IOLC sub-units. However, among the barriers identified by IOLC graduates as hindering their attempts at skills usage, "resistance to change (subordinates)" and "resistance to change (peers)" were the

most frequently identified throughout all four of the IOLC sub-units. "Resistance to change (self)" was the second most-frequent barrier encountered by IOLC graduates while attempting to apply the Delegation skills on the job. "My immediate superior doesn't support" barrier was named by more than three times as many IOLC graduates for the Leadership Model(s) sub-unit than for the Situational Communications and Delegation sub-units.

Incentives that facilitated skills usage

The incentives that facilitated IOLC graduates' use of acquired leadership skills on the job are summarized in Tables 11 through 14.

Leadership Model Incentives. Table 11 summarizes the incentives IOLC graduates identified related to their attempts to utilize newly acquired Leadership Model(s) skills on the job.

Table 11
Incentives that Facilitated IOLC Graduates' Usage of Acquired Leadership Model(s) Skills on the Job

INCENTIVES	N (IOLC GRADUATES)
My immediate superior is supportive	91
Command rewards via praise and recognition	44
My immediate superior monitors my leadership performance and provides constructive feedback	36
My immediate superior sets a proper example	72
I have been assigned a mentor	18
Open lines of communication with my immediate superior	106
Open lines of communication with subordinates	145
Receptiveness from subordinates	94
The leadership models worked when used	69
I have encountered no incentives	50
Other	15

Situational Communications Incentives. Table 12 summarizes the incentives IOLC graduates' identified related to their attempts to utilize newly acquired Situational Communications skills on the job.

Table 12
Incentives that Facilitated IOLC Graduates' Usage of Acquired Situational Communications Skills on the Job

INCENTIVES	N (IOLC GRADUATES)
My immediate superior is supportive	85
Command rewards via praise and recognition	32
My immediate superior monitors my leadership performance and provides constructive feedback	37
My immediate superior sets a proper example	54
I have been assigned a mentor	11
Open lines of communication with my immediate superior	99
Open lines of communication with subordinates	131
Receptiveness from subordinates	87
The leadership models worked when used	69
I have encountered no incentives	57
Other	13

Delegation Incentives. Table 13 summarizes the incentives IOLC graduates identified related to their attempts to utilize newly acquired Delegation skills on the job.

Table 13
Incentives that Facilitated IOLC Graduates' Usage of Acquired Delegation Skills on the Job

INCENTIVES	N (IOLC GRADUATES)
My immediate superior is supportive	89
Command rewards via praise and recognition	30
My immediate superior monitors my leadership performance and provides constructive feedback	44
My immediate superior sets a proper example	65
I have been assigned a mentor	11
Open lines of communication with my immediate superior	85
Open lines of communication with subordinates	130
Receptiveness from subordinates	99
The leadership models worked when used	78
I have encountered no incentives	49
Other	15

Command Climate Incentives. Table 14 summarizes the incentives IOLC graduates identified related to their attempts to utilize newly acquired Command Climate skills on the job.

Table 14
Incentives that Facilitated IOLC Graduates' Usage of Acquired Command Climate Skills on the Job

INCENTIVES	N (IOLC GRADUATES)
My immediate superior is supportive	66
Command rewards via praise and recognition	36
My immediate superior monitors my leadership performance and provides constructive feedback	27
My immediate superior sets a proper example	53
I have been assigned a mentor	12
Open lines of communication with my immediate superior	77
Open lines of communication with subordinates	91
Receptiveness from subordinates	60
The leadership models worked when used	42
I have encountered no incentives	105
Other	27

Summary of Results. Tables 11 through 14 summarize data relevant to the second part of research question number four, i.e., the part related to "incentives" for skills use. "Open lines of communications" with subordinates and their immediate superiors, along with "receptiveness from subordinates" were the incentives most frequently identified by IOLC graduates across three of the four IOLC sub-units: Leadership Model(s), Situational Communications and Delegation. The majority of IOLC graduates (105 out of 173) indicated that they encountered

no incentives that encouraged their use of Command Climate skills on the job. The number of "no incentives" responses regarding the Command Climate skills usage was substantially higher than the amount of "no incentives" responses among the other three IOLC sub-units.

Part II

In this second half of the chapter, descriptive data about demographic and contextual variables are presented. Then, findings related to the null hypotheses discussed in Chapter 3. These findings relate to the fifth and final research question: Do the answers to questions about utilization, barriers and incentives vary depending on demographic and contextual variables?

Demographic and Contextual Variables

Survey question numbers 6 through 16 were designed to solicit responses about demographic (gender, race, line/staff officers, etc.) and contextual variables (the four IOLC sub-units, shore/sea duty, active duty/reserve component, etc.) as a precursor to answering -- through inferential analysis -- the last research question about the impact of demographic and contextual variables on skills use. The following is a summary of the IOLC graduates' responses to survey questions 6 through 16.

Tables 15 through 27 relate demographic and contextual variables to length of time needed to utilize skills taught in the four IOLC sub-units.

Race/Ethnicity. Seventy-eight percent (206) of the survey respondents were Caucasian or White; 17 (6.4%) were

Asian or Pacific Islanders; 14 (5.3%) were Black or African Americans; Eight (3.0%) were Hispanic; six (2.3%) were American Indian or Alaska Native; four (1.5%) reported as "other" and nine (3.4%) reported as "unknown".

Table 15 summarizes by race/ethnicity, the average length of time needed to apply the skills taught in the four IOLC sub-units.

Table 15
Means for Average Elapsed Days Prior to Graduates' Use of Acquired Leadership Skills on the Job by Race/Ethnicity

		LEADERSHIP SUB-UNITS			
RACE/ETHNICITY		LEADUTIL	SITCOMU	DELEUTIL	CLIMUTIL
Caucasian or White	Mean Days	45.7	41.2	50.1	53.2
	N	174	168	180	137
	Std. Deviation	59.8	46.0	70.6	65.9
Asian or Pacific Islander	Mean Days	33.5	38.1	44.7	48.0
	N	14	14	13	11
	Std. Deviation	23.5	27.3	47.4	49.8
Black or African American	Mean Days	46.1	66.6	37.1	113.8
	N	14	12	13	11
	Std. Deviation	61.8	98.5	73.0	215.2
Hispanic	Mean Days	48.4	52.5	36.8	28.3
	N	7	8	8	3
	Std. Deviation	52.6	64.6	49.5	28.4
American Native	Mean Days	36.6	34.5	65.5	19.3
	N	5	6	6	4
	Std. Deviation	24.0	22.1	63.5	13.2
Other	Mean Days	9.3	14.7	7.3	19.7
	N	3	3	4	3
	Std. Deviation	4.0	13.3	5.3	21.9
Unknown	Mean Days	46.0	38.2	38.7	67.5
	N	5	6	6	4
	Std. Deviation	62.7	62.5	62.9	75.9
Total	Mean Days	44.3	42.2	48.0	55.3
	N	222	217	230	173
	Std. Deviation	57.0	49.7	67.8	81.8

Summary of Results. The average elapsed days prior to utilization of Leadership Model(s) was the lowest among Asian or Pacific Islanders. Hispanics reported taking the

longest amount of time (in average elapsed days) to apply Leadership Model(s) skills on the job but reported the lowest averages in elapsed days prior to utilization of Delegation skills. The average elapsed days prior to skills usage for the Situational Communications and Command Climate sub-units was the highest among African Americans. African Americans also reported the second lowest average in elapsed days prior to utilization of the Delegation skills among the other racial/ethnic groups.

Gender. The data in this sub-section are presented in two different ways, unweighted and weighted. Table 16 summarizes by gender (unweighted and weighted) the average length of time needed to apply the skills taught in the four IOLC sub-units.

As discussed in the introductory section of this chapter, females comprised 32.3 percent (163 of 505) of the survey population. From the 264 survey responses, 76 (28.8%) were females. In order to render their responses representative of the actual survey population, their responses had to be inflated to 1.18 per 1.0 responses. Conversely, the males made up 67.7 percent (342 out of 505) of the survey population. Since 188 males responded to the survey instrument, their responses had to be deflated by .093 per 1.0 responses.

Table 16
Means for Average Elapsed Days Prior to Graduates' Use of Acquired Leadership Skills on the Job by Gender

Unweighted Data

		LEADERSHIP SUB-UNITS			
GENDER		LEADUTIL	SITCOMU	DELEUTIL	CLIMUTIL
Female	Mean Days	52.7	54.9	49.9	75.2
	N	66	64	65	50
	Std. Deviation	57.5	63.1	67.3	116.4
Male	Mean Days	40.8	36.9	47.2	47.2
	N	156	153	165	123
	Std. Deviation	56.5	41.9	68.1	61.3
Total	Mean Days	44.3	42.2	48.0	55.3
	N	222	217	230	173
	Std. Deviation	57.0	49.7	67.8	81.8

Weighted Data

		LEADERSHIP SUB-UNITS			
GENDER (WEIGHTED DATA)		LEADUTIL	SITCOMU	DELEUTIL	CLIMUTIL
Female	Mean Days	52.7	54.9	49.9	75.2
	N	78	76	77	59
	Std. Deviation	57.4	63.0	67.2	116.2
Male	Mean Days	40.8	36.9	47.2	47.2
	N	145	142	153	114
	Std. Deviation	56.6	41.9	68.2	61.3
Total	Mean Days	45.0	43.1	48.1	56.7
	N	223	218	230	173
	Std. Deviation	57.0	50.8	67.7	84.8

Summary of Results. The average elapsed days prior to utilization of leadership skills was higher among the female respondents across all four of the IOLC sub-units. The most notable difference in average elapsed days between

male and female respondents were use of the Command Climate; the gender-based difference here was 28 days. A comparison of unweighted and weighted data revealed similar results.

Duty Status. Table 17 summarizes, by duty status, the distribution of respondents who attended IOLC.

Table 17
Distribution of IOLC Graduates by Duty Status

Status	N	Percent	Cum Percent
Active Duty	228	86.4	86.4
Selective Reserve	32	12.1	98.5
Training and Administration of Reserves (TAR)	4	1.5	100.0
Total	264	100.0	

Table 18 summarizes, by duty status, the average length of time needed to apply the skills taught in the four IOLC sub-units.

Table 18
Means for Average Elapsed Days Prior to Graduates' Use of Acquired Leadership Skills on the Job by Duty Status

		LEADERSHIP SUB-UNITS			
STATUS		LEADUTIL	SITCOMU	DELEUTIL	CLIMUTIL
Active Duty	Mean Days	46.0	42.2	50.9	51.7
	N	189	185	196	151
	Std. Deviation	59.7	50.4	71.8	64.1
Selective Reservists	Mean Days	37.1	45.0	32.4	89.3
	N	30	28	31	19
	Std. Deviation	37.7	48.5	32.9	167.7
Training and Admin of Reserves	Mean Days	14.0	20.3	14.7	17.0
	N	3	4	3	3
	Std. Deviation	7.0	11.6	17.8	11.8
Total	Mean Days	44.3	42.2	48.0	55.3
	N	222	217	230	173
	Std. Deviation	57.0	49.7	67.8	81.8

Summary of Results. The results illustrated in Table 18 do not take into account the fact that the IOLC graduates who are members of the Selective Reserve usually report for duty only one weekend per month. Therefore, it would be reasonable to assume that it would take longer, on average, for Reservists to apply their newly acquired skills on the job as compared to their active duty counterparts who are employed by the U.S. Navy on a full-time basis. However, the results indicate that it had taken the IOLC graduates serving on active duty longer to apply their newly acquired Leadership Model(s) and

Delegation skills on the job than it did for the selective reservists.

Line/Staff. One-hundred-and-ninety respondents (72%) were staff officers and 74 respondents (28%) were regular line officers. Table 19 provides a further breakdown of the respondents who had reported being affiliated with the above mentioned officer communities.

Table 19
Distribution of IOLC Graduates by Line and Staff Officer Community

Community	N	Percent	Cum Percent
Line			
Unrestricted Line (regular)	41	15.5	15.5
Limited Duty Officer	6	2.3	17.8
Restricted Line,			
Aerospace Maintenance Duty	4	1.5	19.3
Aerospace Engineering Duty	1	.4	19.7
Oceanography	10	3.8	23.5
Intelligence	4	1.5	25.0
Public Affairs	4	1.5	26.5
Other	4	1.5	28.0
Sub-total	74	28.0	
Staff			
Supply	4	1.5	29.5
Medical	45	17.0	46.5
Dental	9	3.4	49.9
Medical Service Corps	47	17.8	67.7
Nurse Corps	45	17.0	84.7
Judge Advocate General	4	1.5	86.2
Civil Engineer Corps	21	8.0	94.2

Chaplain	15	5.7	100.0
Sub-total	190	72.0	
Total	264	100.0	

Table 20 summarizes, by Line and Staff Officers, the average length of time needed to apply the skills taught in the four IOLC sub-units.

Table 20
Means for Average Elapsed Days Prior to Graduates' Use of Acquired Leadership Skills by Line and Staff Officer Community

		LEADERSHIP SUB-UNITS			
LINE/STAFF		LEADUTIL	SITCOMU	DELEUTIL	CLIMUTIL
Line	Mean Days	44.8	37.4	40.6	45.9
	N	61	58	63	49
	Std. Deviation	60.1	48.8	55.8	57.8
Staff	Mean Days	44.1	43.9	50.7	59.0
	N	161	159	167	124
	Std. Deviation	55.9	50.0	71.7	89.4
Total	Mean Days	44.3	42.2	48.0	55.3
	N	222	217	230	173
	Std. Deviation	57.0	49.7	67.8	81.8

Summary of Results. Elapsed days in utilization of leadership skills on average was higher among Staff Officers across three of the four IOLC sub-units (Situational Communications, Delegation and Command Climate).

Line Officers. Table 21 summarizes by Line Officers, the average length of time needed to apply the skills taught in the four IOLC sub-units.

Table 21
Means for Average Elapsed Days Prior to Graduates' Use of Acquired Leadership Skills on the Job by Line Officer Community

		LEADERSHIP SUB-UNITS			
LINE COMMUNITY		LEADUTIL	SITCOMU	DELEUTIL	CLIMUTIL
Unrestricted Line	Mean Days	51.4	41.7	46.1	57.3
	N	31	31	33	27
	Std. Deviation	66.5	52.0	58.6	66.8
Unrestricted Line, LDO	Mean Days	48.5	57.6	53.3	57.0
	N	6	5	6	4
	Std. Deviation	67.4	71.1	69.6	82.1
Restricted Line, Aerospace Maint. Duty	Mean Days	13.0	11.3	3.8	8.5
	N	4	4	4	2
	Std. Deviation	7.4	7.9	2.2	7.8
Restricted Line, Engineering Duty	Mean Days	14.0	180.0	21.0	
	N	1	1	1	
	Std. Deviation				
Restricted Line, Oceano-graphy	Mean Days	50.2	18.7	57.9	51.7
	N	9	6	9	6
	Std. Deviation	66.3	14.4	70.3	34.5
Restricted Line, Intel	Mean Days	16.3	22.0	21.0	18.0
	N	3	4	3	4
	Std. Deviation	8.1	10.9	14.0	9.8
Restricted Line, Public Affairs	Mean Days	32.3	40.0	22.7	22.3
	N	3	3	3	3
	Std. Deviation	26.6	17.3	32.5	13.3
Other	Mean Days	46.5	11.5	7.5	2.3
	N	4	4	4	3
	Std. Deviation	69.5	13.8	7.5	2.3
Staff Officers	Mean Days	44.1	43.9	50.7	59.0
	N	161	159	167	124

	Std. Deviation	55.9	50.0	71.7	89.4
Total	Mean	44.3	42.2	48.0	55.3
	N	222	217	230	173
	Std. Deviation	57.0	49.7	67.8	81.8

Summary of Results. Average elapsed days prior to utilization of Leadership Model(s) skills was highest among Unrestricted Line Officers and Restricted Line Officers from the Oceanographic Community. Average elapsed days prior to utilization of Situational Communications skills was the highest among Unrestricted Line Officers from the Limited Duty Officer (LDO) Community. Average elapsed days prior to utilization of Delegation skills was the lowest among Restricted Line Officers from the Aerospace Maintenance Community and was the highest among Restricted Line Officers from the Oceanographic Community. Average elapsed days prior to utilization of Command Climate skills were the highest among Unrestricted Line Officers including officers from the LDO Community.

Staff Officers. Table 22 summarizes by Staff Officers, the average length of time needed to apply the skills taught in the four IOLC sub-units.

Table 22
Means for Average Elapsed Days Prior to Graduates' Use of Acquired Leadership Skills on the Job by Staff Officer Community

		LEADERSHIP SUB-UNITS			
STAFF COMMUNITY		LEADUTIL	SITCOMU	DELEUTIL	CLIMUTIL
Supply	Mean Days	27.8	33.0	22.3	64.0
	N	4	4	4	4
	Std. Deviation	23.6	19.4	25.9	81.3
Medical	Mean Days	54.5	53.8	57.3	68.2
	N	39	39	37	27
	Std. Deviation	66.4	60.3	77.5	79.8
Dental	Mean Days	76.3	23.2	63.4	62.4
	N	6	6	7	7
	Std. Deviation	142.1	20.9	133.3	133.7
Medical Service Corps	Mean Days	40.4	31.8	39.8	35.1
	N	41	39	42	33
	Std. Deviation	47.7	33.6	67.7	33.1
Nurse Corps	Mean Days	47.9	52.4	50.7	85.6
	N	39	41	41	33
	Std. Deviation	49.4	58.8	55.8	133.2
Judge Advocate General	Mean Days	32.3	80.0	60.0	35.7
	N	3	3	3	3
	Std. Deviation	26.6	86.6	30.0	47.1
Civil Engineer Corps	Mean Days	23.3	45.5	44.2	43.9
	N	15	15	18	7
	Std. Deviation	23.9	44.8	48.4	27.6
LDO	Mean Days	28.0	60.0	30.0	
	N	1	1	1	
	Std. Deviation				
Chaplain Corps	Mean Days	31.6	22.9	70.7	51.3
	N	14	12	15	11
	Std. Deviation	33.9	20.1	106.5	67.2
Total	Mean Days	44.1	43.8	50.4	59.9
	N	162	160	168	125
	Std. Deviation	55.8	49.9	71.6	89.7

Summary of Results. The average elapsed days prior to utilization of the Leadership Model(s) skills was the highest among Staff Officers from the Dental Community and the lowest among Staff Officers from the Civil Engineer Corps. The average elapsed days prior to utilization of the Situational Communications skills was the highest among Judge Advocate General (JAG) officers and was the lowest among officers from Chaplain and Dental Corps. The average elapsed days prior to utilization of the Delegation skills was the highest among officers from the Chaplain Corps and was the lowest among officers from of Supply Corps. The average elapsed days prior to utilization of Command Climate skills was the highest among officers from the Nurse Corps and lowest among officers from the Medical Service Corps and Judge Advocate General Community.

Type Duty. Table 23 presents a summary of the type of duty the IOLC graduates were serving after completion of IOLC.

Table 23
Distribution of IOLC Graduates' by Type Duty

Type Duty	N	Percent	Cum Percent
Shore	184	69.7	69.7
Sea	54	20.5	90.2
Other (overseas, neutral, etc.)	26	9.8	100.0
Total	264	100.0	

Table 24 summarizes by type duty, the average length of time needed to apply the skills taught in the four IOLC sub-units.

Table 24
Means for Average Elapsed Days Prior to Graduates' Use of Acquired Leadership Skills on the Job by Type Duty

		LEADERSHIP SUB-UNITS			
TYPE DUTY		LEADUTIL	SITCOMU	DELEUTIL	CLIMUTIL
Shore Duty	Mean Days	46.2	46.0	48.7	56.8
	N	159	156	159	117
	Std. Deviation	59.7	54.00	67.9	90.3
Sea Duty	Mean Days	43.7	32.2	48.3	52.2
	N	44	41	50	41
	Std. Deviation	55.9	35.7	75.2	61.4
Other	Mean Days	30.6	32.7	41.6	51.3
	N	19	20	21	15
	Std. Deviation	29.6	33.7	47.8	61.4
Total	Mean Days	44.3	42.2	48.0	55.3
	N	222	217	230	173
	Std. Deviation	57.0	49.7	67.8	81.8

Summary of Results. The average elapsed days prior to utilization of leadership skills was the highest among officers who were serving on shore duty throughout all four of the IOLC sub-units. Officers on "other" duty, such as overseas, etc. reported the lowest average of elapsed days prior to skills usage across all four of the IOLC sub-units.

Graduates' Job Position. Table 25 is a representation of the distribution of the job positions held by the IOLC graduates after completion of IOLC:

Table 25
Distribution of IOLC Graduates' by Job Positions

JOB POSITION	N	PERCENT	CUM PERCENT
IOLC graduates			
Director	9	3.4	3.4
Department Head	67	25.4	28.8
Assistant Department Head	25	9.5	38.3
Division Officer	69	26.1	64.4
Other (Executive Officer, Assistant Director, Officer-in-Charge, Assistant Officer-in-Charge, Worker-Bee, etc.)	94	35.6	100.0
Total	264	100.0	100.0

Table 26 summarizes, by job position held, the average length of time needed to apply the skills taught in the four IOLC sub-units.

Table 26
Means for Average Elapsed Days Prior to Graduates' Use of Acquired Leadership Skills on the Job by Job Positions

		LEADERSHIP SUB-UNITS			
POSITION		LEADUTIL	SITCOMU	DELEUTIL	CLIMUTIL
Director	Mean Days	56.1	63.5	87.1	32.0
	N	7	8	7	6
	Std. Deviation	60.9	56.2	138.0	15.1
Department Head	Mean Days	31.9	33.9	39.0	44.0
	N	60	57	62	49
	Std. Deviation	53.1	38.6	61.3	68.1
Assistant Department Head	Mean Days	25.3	25.1	23.5	27.2
	N	23	20	24	16
	Std. Deviation	27.4	22.4	24.9	26.8
Division Officer	Mean Days	59.1	44.6	59.2	65.5
	N	56	55	63	46
	Std. Deviation	72.8	47.6	83.0	69.4
Other	Mean Days	47.9	48.8	50.1	67.2
	N	76	77	74	56
	Std. Deviation	50.2	60.5	56.0	109.9
Total	Mean Days	44.3	42.2	48.0	55.3
	N	222	217	230	173
	Std. Deviation	57.0	49.7	67.8	81.8

Summary of Results. The average elapsed days prior to utilization of leadership skills was the highest among IOLC graduates who were filling the positions of Director across three of the IOLC sub-units, and, was the highest for graduates who were filling the position of Division Officer across all four of the IOLC sub-units.

Graduates' Immediate Superiors' Job Positions. Table 27 is a representation of the distribution of the positions the IOLC graduates' immediate superiors held upon completion of IOLC:

Table 27
Distribution of IOLC Graduates' by their Immediate Superiors' Job Positions

JOB POSITIONS	N	PERCENT	CUM PERCENT
Executive Officer	51	19.3	19.3
Department Head	113	42.8	62.1
Assistant Department Head	13	4.9	67.0
Division Officer	22	8.3	75.4
Other (Commanding Officer, Director, Assistant Director, Officer-in-Charge, Assistant Officer-in-Charge, etc.)	65	24.6	100.0
Total	264	100.0	

Table 28 summarizes, by job positions held by the IOLC graduates' immediate superiors, the average length of time needed to apply the skills taught in the four IOLC sub-units.

Table 28
Means for Average Elapsed Days Prior to Graduates' Use of Acquired Skills on the Job by their Immediate Superiors Job Positions

		LEADERSHIP SUB-UNITS			
SUPERIOR'S JOB POSITION		LEADUTIL	SITCOMU	DELEUTIL	CLIMUTIL
Executive Officer	Mean Days	33.0	36.4	34.0	35.5
	N	43	41	43	36
	Std. Deviation	37.1	41.5	60.7	43.3
Department Head	Mean Days	46.4	43.2	46.9	56.8
	N	94	91	98	75
	Std. Deviation	63.8	53.0	71.5	66.2
Assistant Department Head	Mean Days	56.0	42.4	58.3	40.8
	N	11	10	12	6
	Std. Deviation	63.6	52.1	70.7	51.0
Division Officer	Mean Days	67.4	54.7	76.5	128.9
	N	22	20	20	13
	Std. Deviation	82.7	52.2	83.8	205.0
Other	Mean Days	37.7	40.3	48.1	48.8
	N	52	55	57	43
	Std. Deviation	38.4	49.1	57.6	60.7
Total	Mean Days	44.3	42.2	48.0	55.3
	N	222	217	230	173
	Std. Deviation	57.0	49.7	67.8	81.8

Summary of Results. The average elapsed days prior to utilization of leadership skills was the lowest among IOLC graduates whose immediate superiors were filling the positions of Executive Officer across the four IOLC sub-units.

IOLC Resources. Table 29 summarizes, by available pertinent resources, the average length of time needed to apply the skills taught in the four IOLC sub-units.

Table 29
Means for Average Elapsed Days Prior to Graduates' Use of Acquired Leadership Skills on the Job by Availability and Non-Availability of Applicable Reference Material

		LEADERSHIP SUB-UNITS			
IOLC RESOURCES		LEADUTIL	SITCOMU	DELEUTIL	CLIMUTIL
NOT AT JOB SITE	Mean Days	48.7	49.3	56.4	61.5
	N	131	129	136	100
	Std. Deviation	58.8	55.2	75.6	92.8
AVAILABLE AT JOB SITE	Mean Days	38.0	31.8	35.7	46.7
	N	91	88	94	73
	Std. Deviation	53.9	38.1	52.4	63.2
Total	Mean Days	44.3	42.2	48.0	55.3
	N	222	217	230	173
	Std. Deviation	57.0	49.7	67.8	81.8

Summary of Results. The respondents who reported having reference material available at their work place indicated that they applied their leadership skills considerably earlier than their counterparts who reported the non-availability of applicable reference material.

Statistically Significant Findings

Inferential Statistics. In order to ascertain if there were statistically significant relationships between demographic and contextual variables on the one hand and

findings about skill use on the other, a one-way ANOVA (Norusis, 2000) was performed. An ANOVA is used for drawing conclusions with regard to differences in population means when comparing two or more groups (Norsusis, 1999; Huck & Cormier, 1996). This researcher used the ANOVA in order to test, and, either reject, or fail to reject, the Null Hypothesis (H_o) that there was no statistically significant difference in utilization of acquired IOLC leadership skills among sub-groups.

The ANOVAs were tested at the 95 percent confidence level. As discussed in the previous chapter, it was the researcher's goal to obtain at least 218 respondents in order to attain a 95 percent level of confidence with a population size of 500 (Ray & Parker, 1997). Two-hundred-and-sixty-four respondents (52.3% of the 505 graduates who were sent research instruments) filled out and returned the survey instrument. In order to test for false positives associated with Type I errors (the error that occurs when a researcher rejects a null hypothesis that is in fact true (Ary, Jacobs & Razavieh, 1996)), post hoc tests were conducted on all ANOVAs that yielded tentative results of statistical significance (Norusis, 1999).

This researcher opted to conduct the post hoc analysis in two ways. The first method of testing for false

positive results was via the Least Significant Difference (LSD) Test (Norusis, 1999). Employing the LSD method involved the use of standard "t" tests to all possible pairs of group averages (Norusis, 1999). No adjustments were made to the data because the LSD relied on the premise that the overall difference in group means had already been established at the .05 criterion level. The LSD method is the most liberal of the post hoc tests (Norusis, 1999). The LSD's less control over Type I errors is offset by its increased power (the ability to reject a H_o when it is, in fact, false (Ary, Jacobs & Razaveih, 1996)).

To further ensure protection against false positive results, and to provide a degree of balance between the possibility of Type I and Type II errors, the researcher also conducted a Scheffe post hoc test (Norusis, 1999). The Scheffe post hoc test adjusted the data to include any possible comparison between the IOLC groups. The Scheffe has less statistical power than the LSD but has the least rate of false positives among the various types of post hoc tests (Norusis, 1999). In order for an ANOVA to be considered statistically significant in my study, it had to pass both the LSD and Scheffe Post Hoc Tests. The following is a summary of those findings that were statistically significant:

Utilization

Supervisor's Job Position vs. Command Climate Utilization. Utilization opportunities were related to the types of jobs graduates' immediate superiors held. Initially statistically significant relationships were found between skills taught in the Command Climate sub-unit and all jobs. The Scheffe post hoc test identified three job types: Executive Officer, Division Officer and "Other". Table 30 summarizes the results between the LSD and Scheffe post hoc tests:[1]

Table 30
Comparison Between a LSD and a Scheffe Post Hoc Tests for a One-Way ANOVA Result of IOLC Graduates' Use of Acquired Command Climate Skills on the Job Compared to Positions Held by Their Immediate Superiors

BOSSES' JOB TITLE	LSD	SCHEFFE
Executive Officers compared to Division Officers	.000**	.012**
Other officers compared to Division Officers	.002**	.042**

**p< .05

Summary of Results. Results for one null hypothesis relating utilization to the various demographic variables considered in the study can be summarized as follows:

[1] Although only two areas were found to be statistically significant regarding utilization of acquired Command Climate leadership skills, four other areas had tentative statistically significant findings that did not hold up under the Scheffe Post Hoc Tests and are included in Appendix G.

a) Based on the preliminary ANOVA results, and, the tentatively statistically significant LSD findings which held up under the more conservative Scheffe post hoc test, **the study rejects the Null Hypothesis** that there is no statistically significant relationship between utilization of acquired leadership skills on the job and the various positions filled by graduates' immediate superiors.

Barriers Hindering Skills Usage

Active Duty vs. Selective Reservists. Initial statistically significant relationships were found with barriers identified by active duty and reservists while attempting to apply skills acquired during the Delegation sub-unit. The results were validated by both the LSD and Scheffe post hoc tests as illustrated in Table 31.

Table 31
Comparison Between LSD and Scheffe Post Hoc Tests for a One-Way ANOVA Result of Barriers Identified by IOLC Graduates Serving on Active Duty While Attempting to Apply Delegation Skills on the Job Compared to IOLC Graduates Serving as Selective Reservists

TYPE DUTY	LSD	SCHEFFE
Active Duty compared to Selective Reservists	.007**	.027**

**p< .05

Race vs. Command Climate Barriers. Initial statistically significant relationships were found between barriers identified by IOLC graduates while attempting to apply Command Climate skills and among all races. The Scheffe post hoc test identified statistically significant results among IOLC graduates from the American Indian or Alaska Natives category when compared to all the other racial groups. The following table summarizes the results between the LSD and Scheffe post hoc tests.

Table 32
Comparison Between a LSD and Scheffe Post Hoc Tests for a One-Way ANOVA Result of Barriers Identified by IOLC Graduates with American Indian or Alaska Native Ethnicity While Attempting to Apply Command Climate Skills on the Job Compared to IOLC Graduates of all Other Race/Ethnic Groups

RACIAL GROUPS COMPARED WITH AMERICAN INDIAN OR ALASKA NATIVE GROUP	LSD	SCHEFFE
Caucasian	.000**	.000**
Black or African American	.000**	.000**
Asian or Pacific Islander	.000**	.000**
Hispanic	.000**	.000**
Other	.000**	.000**
Unknown	.000**	.000**

**p< .05

Summary of Results. Results for one null hypothesis relating barriers to the various demographic and contextual variables considered in the study can be summarized as follows:

1. Based on the preliminary ANOVA results and the

tentatively statistically significant LSD findings which held up under the more conservative Scheffe post hoc test, **this researcher rejects the Null Hypothesis** that there is no statistically Significant relationship between barriers identified by IOLC graduates while attempting to apply leadership skills on the job and their duty status (e.g. Active Duty, Selective Reserve and Training and Administration of Reserves).

2. Based on the preliminary ANOVA results and the tentatively statistically significant LSD findings which held up under the more conservative Scheffe post hoc test, **this study rejects the Null Hypothesis** that there is no statistically significant relationship between barriers identified by IOLC graduates while attempting to apply acquired leadership skills on the job and their representation by race/ethnicity background.

Incentives

Bosses' Perceptions. Initial statistically significant relationships were found between incentives

identified by IOLC graduates while trying to utilize leadership skills on the job all four sub-units ($p < .004$) for Leadership Models, .001 for Situational Communications, ($p < .000$) for Delegation, and ($p < .000$) for Command Climate) when compared with perceptions of their bosses' attitude regarding their skills usage. The majority of the statistically significant results were validated by both the LSD and Scheffe post hoc tests and are summarized in the following tables.[2]

Table 33
Comparison Between LSD and Scheffe Post Hoc Tests for a One-Way ANOVA Result of Incentives Identified by IOLC Graduates While Attempting to Apply Leadership Model(s) Skills on the JOB (Immediate Superiors' Perceptions)

BOSSES' PERCEPTION	LSD	SCHEFFE
Neutral compared to Encouraging	.000**	.006**

**p< .05

[2] Although there were ten findings that were statistically significant regarding incentives identified by IOLC graduates while attempting to utilize acquired leadership skills on the job, seven other areas were found to have tentative statistically significant findings but did not hold up under the Scheffe Post Hoc Test.

Table 34
Comparison Between LSD and Scheffe Post Hoc Tests for a One-Way ANOVA Result of Incentives Identified by IOLC Graduates While Attempting to Apply Situational Communications Skills on the Job (Immediate Superiors' Perceptions)

BOSSES' PERCEPTION	LSD	SCHEFFE
Requiring compared to Discouraging	.000**	.010**
Requiring compared to Neutral	.000**	.003**
Requiring compared to Encouraging	.001**	.031**

**p< .05

Table 35
Comparison Between LSD and Scheffe Post Hoc Tests for a One-Way ANOVA Result of Incentives Identified by IOLC Graduates While Attempting to Apply Delegation Skills on the Job (Immediate Superiors' Perceptions)

BOSSES' PERCEPTION	LSD	SCHEFFE
Requiring compared to Discouraging	.000**	.010**
Requiring compared to Neutral	.000**	.002**
Neutral compared to Encouraging	.001**	.034**

**p< .05

Table 36
Comparison Between LSD and Scheffe Post Hoc Tests for a One-Way ANOVA Result of Incentives Identified by IOLC Graduates While Attempting to Apply Command Climate Skills on the Job (Immediate Superiors' Perceptions)

BOSSES' PERCEPTION	LSD	SCHEFFE
Requiring compared to Discouraging	.000**	.003**
Requiring compared to Neutral	.000**	.000**
Requiring compared to Encouraging	.000**	.010**

**p< .05

Summary of Results. Results for one null hypothesis relating incentives to the various demographic variables considered in the study can be summarized as follows:

1. Based on the preliminary ANOVA results and the tentative statistically significant LSD findings which held up under the more conservative Scheffe post hoc test, **this study rejects the Null Hypothesis** that there is no statistically significant relationship between incentives identified by IOLC graduates while attempting to apply acquired leadership skills on the job and their different perceptions of their immediate superiors' attitudes regarding their skills usage.

Summary of Open Ended Responses/Comments

Seventy-eight respondents completed the "Optional Comments" section at the end of survey instrument. The following is a summary of comments that related to the topic of the study:

1. Twelve IOLC graduates indicated that they had difficulty completing the questionnaire because they could not remember the course content.
2. Five IOLC graduates from the medical community

indicated that many of the skills taught were not applicable to Medical Officers but were more relevant to members serving in operational commands.

3. Three IOLC graduates indicated that they have been unable to apply their acquired leadership on the job because they have no subordinates assigned to them.
4. Three IOLC graduates indicated that they did not have the time to utilize any acquired leadership skills on the job because of the nature of their professions. (Two of the three indicated what their jobs were: Clinical Physician and Catapult Arresting Gear Officer aboard a U.S. Navy Aircraft Carrier.)
5. Two IOLC graduates indicated that they also desired to learn how to effectively apply other forms of motivational tools -- such as extra military instruction and other counseling techniques -- when dealing with difficult subordinates.
6. Three IOLC graduates indicated that they enjoyed the course but were unable to apply their newly acquired leadership skills on the job because their immediate superiors were uncooperative.

7. Two IOLC graduates indicated that the course was a Complete waste of time and money. Two other IOLC graduates indicated that they had already received similar training from a graduate education program.
8. Nine IOLC graduates indicated that they enjoyed the course, that it was useful and that it served as a refresher for honing leadership skills that they had previously acquired.

Overall Summary

Although initially there seemed to be significant variation among demographic and contextual variables on the one hand, and perceptions of skill use on the other, only the following results ultimately were determined to be statistically significant:

1. The difference in the average number of elapsed days prior to utilization of acquired Command Climate skills on the job between IOLC graduates whose immediate superiors held Executive Officer level positions (35.5 days) and IOLC graduates whose immediate superiors held Division Officer level positions (128.9 days).
2. The difference in the average number of elapsed days prior to utilization of acquired Command

Climate skills on the job between IOLC graduates whose immediate superiors held "Other" Officer level (e.g. Commanding Officer, Assistant Director, Officer-in-Charge, etc.) positions (48.8 days) and IOLC graduates whose immediate superiors held Division Officer level positions (128.9 days).

3. The difference in the average number of elapsed days prior to utilization of acquired Delegation skills on the job for the barriers identified by IOLC graduates while attempting to utilize acquired Delegation skills on the job between IOLC graduates serving on active duty (50.9 days) and IOLC graduates serving in the selective reserve (32.4 days).
4. The difference in the average number of elapsed days prior to utilization of acquired Command Climate skills on the job for the barriers identified by IOLC graduates while attempting to utilize acquired Command Climate skills on the job between IOLC graduates of American Indian or Alaska Native ethnicity (19.3 days) and IOLC graduates from all other race/ethnic backgrounds (ranging from 28.3 days to 113.8 days).

5. The difference in the average number of elapsed days prior to utilization of Leadership Model(s) skills on the job for the incentives identified by IOLC graduates while attempting to apply acquired Leadership Model(s) skills on the job between IOLC graduates whose perceptions of their immediate superiors' attitudes were neutral (51.6 days) and IOLC graduates whose perceptions of their immediate superiors attitudes were encouraging (34.1 days).

A two-way ANOVA was run on the data in order to draw conclusions about differences in population means between two or more comparison groups (SPSS 1999). A few of the two-way ANOVA's initially appeared to be statistically significant, however, the results did not hold up under the Scheffe post hoc test and were not discussed in the findings section of this study.

CHAPTER FIVE DISCUSSION

Chapter Five briefly reviews the purpose, the methodology, and the findings of the study. A discussion of the findings follows; then recommendations for the United States Navy and recommendations for future research are presented.

Review of the Study's Purpose and Methods

Purpose

The purpose of the study was to obtain feedback from recent graduates of the U.S. Navy's IOLC on (a) opportunities to use skills learned during IOLC training in their leadership behavior, and, (b) how their immediate superiors responded when the graduates' attempted to use the leadership skills learned during IOLC training.

Methodology

The methodology of this research was primarily quantitative and utilized a six-section, 24-item mail-out questionnaire. Surveys were mailed to 505 U.S. Navy Officers who graduated from IOLC at NAB Coronado, CA from July 2, 1999 to June 30, 2000. A total of 264 completed

surveys were returned for a participation rate of 52.3 percent. This study focused on four of the IOLC's 32 sub-units: Leadership Model(s), Situational Communications, Delegation, and Command Climate. The survey participants were divided into the sub-groups representing the positions that they held at their job sites; the positions held by their immediate superiors; the type of duty they were serving (Shore, Sea or Other); whether they were Restricted or Unrestricted Line Officers; Staff Officers; Duty status (Active, Reserve or TAR); gender; and, race/ethnic background.

Descriptive statistics were used to showcase the distribution of responses among the various sub-groups. The barriers and incentives identified by IOLC graduates while attempting to utilize acquired leadership skills on the job were further broken down by demographic and contextual sub-groups.

Inferential statistics were used in this study to see if any of the responses had statistically significant relationships with any demographic or job related variables. LSD and Scheffe Post hoc tests were conducted in order to minimize the occurrence of false positive findings.

Summary of Findings

Skills Utilization

The first of the five research questions in the study asked if IOLC graduates believed that they were able to use their skills on the job. The answer was yes for the majority of respondents who participated in the study. The IOLC graduates who participated in the study reported a high degree of utilization among three of the four IOLC sub-units (Delegation - 87.1%, Leadership Model(s) - 84.1% and Situational Communications - 82.2%). The fourth IOLC sub-unit (Command Climate - 65.5%) was reported as the least used (see Table 3).

Average Elapsed Time Prior to Skills Utilization

The second research question asked about how much time had elapsed after completion of IOLC before the graduates exercised the leadership skills acquired during the course. The average length (in elapsed days) to utilization of acquired leadership skills across the four IOLC sub-units as reported by the survey respondents was the lowest (42.3 days) among the Situational Communications sub-unit. Leadership Model skills (44.3 days) and skills learned in the Delegation sub-unit (48.0 days) were utilized prior to the skills acquired from the Command Climate (55.3 days)

sub-unit (see Table 4). A common thread among answers to the first two research questions is that utilization of the Command Climate sub-unit skills seems to be somewhat problematic, at least relative to the use of skills developed by the other three sub-units studied.

Perceptions of IOLC Graduates' Immediate Superiors

The third research question focused on the IOLC graduates' perceptions of their immediate superiors' attitudes toward the use of acquired leadership skills on the job. As indicated in Table 5, the majority of respondents reported that they perceived their bosses' to be either "encouraging" (41.3%) or "neutral" (48.1%) about skill use on the job. Only 21 of the 264 respondents reported that their immediate superiors either "discouraged" (6.8%) or were perceived to be "preventing" (1.1%) use of acquired skills. Overall, U.S. Navy management (from the Division Officer up to the Commanding Officer level) did not seem to hinder the IOLC graduates use of acquired leadership skills on the job.

Barriers and Incentives

The fourth research question was oriented toward identifying barriers or incentives that seemed to be associated with skill use across the four IOLC sub-units. The data previously summarized in Tables 7 through 10 indicate that the majority of respondents reported that they encountered no barriers while attempting to apply their acquired leadership skills across the four IOLC sub-units. However, among the barriers that were identified, resistance to change from both subordinates and peers were the most frequently cited by IOLC graduates. An exception to this general pattern was skills learned in the Delegation sub-unit where resistance to change (self) was the second most-frequent barrier encountered by IOLC graduates behind resistance to change (subordinates). IOLC graduates reported that their immediate supervisors were reluctant to support the use of acquired Leadership Model(s) skills on the job at a frequency that was three times higher than what was reported with the other three IOLC sub-units.

The data summarized in Tables 11 through 14 of the previous chapter revealed that open lines of communications with subordinates and graduates' immediate superiors, along with a positive reception from subordinates were the most

frequently mentioned incentives for all sub-units except Command Climate. One-hundred-and-five IOLC graduates (41.3%) reported that they encountered no incentives that encouraged their use of Command Climate skills on the job.

The fifth and final research question focused on whether the answers to the first four research questions varied depending upon demographic (gender, race, line/staff officers, etc.) and contextual variables (four IOLC sub-units, shore/sea duty, active duty/reserve component, etc.).

Demographic Variables

Race/Ethnicity. As indicated in Table 15 of the previous chapter, the Asian or Pacific Islanders category had the lowest average in elapsed days prior to utilization of the Leadership Model(s) skills compared to the other racial/ethnic sub-groups. Hispanics reported taking the longest amount of time to apply Leadership Model(s) skills but reported the lowest average in elapsed time among the other racial/ethnic sub-groups prior to utilization of Delegation skills. African Americans reported the highest average elapsed time prior to skills usage for the Situational Communications and Command Climate sub-units.

Gender. Even though there was no statistically significant findings about the impact of gender on the amount of time that elapsed prior to skill use, it took longer for female IOLC graduates to apply acquired leadership skills on the job with all four IOLC sub-units than it did for their male counterparts. What is potentially alarming is the fact that it took females more than 28 days longer than males to apply acquired Command Climate skills on the job.

Staff Officers. The average elapsed days prior to utilization of leadership skills on the job was higher among Staff Officers than Line Officers in all the IOLC sub-units with the exception of Leadership Model(s) (see Tables 21 and 22).

Line Officers. Restricted Line, Aerospace Maintenance Duty Officers (AMDO's) reported the lowest average elapsed days prior to utilization of acquired leadership skills from all four IOLC sub-units on the job (see Table 21).

Graduates' Job Positions. Graduates who were filling the positions as an Assistant Department Head or Department Head reported the lowest averages in elapsed days prior to utilization of acquired leadership skills across all four of the IOLC sub-units (see Table 26).

Positions Held by Graduates' Immediate Superiors. IOLC graduates' whose immediate superiors held the position of Executive Officer (the second highest level of management among most naval activities) reported the lowest average in elapsed days prior to utilization of acquired leadership skills across all four of the IOLC sub-units. At the other end of the spectrum, IOLC graduates whose immediate superiors held Division Officer level positions (the lowest managerial level filled by commissioned officers among most naval activities) reported the highest average in elapsed days prior to utilization of acquired leadership skills across the four IOLC sub-units (see Table 28).

Contextual Variables

The following sub-sections summarize responses about the impact of contextual variables on reported elapsed days before leadership skills were used.

Duty Status. IOLC graduates serving as Training and Administration of Reserves (TARs) reported the lowest average in elapsed days prior to utilization of acquired leadership skills across all four of the IOLC sub-units (see Table 18).

Type Duty. IOLC graduates serving on "Other" duty (e.g. overseas, special projects, neutral (neither sea or shore duty) etc.) reported the lowest average in elapsed days prior to utilization of acquired leadership skills among three of the four IOLC sub-units (Leadership Model(s), Delegation and Command Climate (see Table 24)).

Discussion

The following is a summary of the conclusions obtained from the study.

Skills Utilization. The study revealed a higher degree of skills utilization than what was reported during earlier studies (Vandover and Villarosa, 1891; Wilcove 1992) and was in line with the upward trend of transfer of learning on the job indicated by two more recent studies (Duncan-White, 1997; Lohmeyer, 1999). A possible explanation for the more recent findings diverging from earlier patterns is that the Navy has worked hard to emphasize training and also has worked hard to encourage delegation.

Average Elapsed Time Prior to Skills Utilization. The average elapsed days prior to utilization of acquired leadership skills does not appear excessive, especially because the vast majority of IOLC graduates attended the

leadership training course while en route to their next assignment. Although the literature suggests that leadership competencies acquired during leadership training courses deteriorate as time elapses if they are not used (Cissell & Polley, 1987; Duncan-White, 1997); some time may be required before skills can be used effectively in a new assignment. It is reasonable to speculate that at least some IOLC graduates might not have had the opportunity to utilize the acquired leadership skills learned during the four IOLC sub-units until several weeks or months after their arrival at their new command.

Perceptions of IOLC Graduates' Immediate Superiors. The findings of the study were encouraging when compared to earlier studies on graduates' perceptions of their superiors attitude regarding acquired use of leadership skills on the job (see, for example, Arnold, 1980; Vandover & Villarosa, 1981). As with skills utilization, the study's finding also suggests that there is a steady trend of improvement in the area of graduates' perceptions of their immediate superiors' attitudes toward skills use on the job (Wilcove, 1992; Duncan-White 1997), this is consistent with the findings of another recent study (Lohmeyer, 1999) and may be a foundation of the Navy's emphasis on delegating responsibility.

Barriers and Incentives. Results of the study suggest that, overall, there are more organizational incentives than barriers for the use of acquired leadership skills on the job. Past studies have indicated that this trend has also been on a steady upward scale as indicated by Cissell and Polley (1987) and Duncan-White (1997) ten years later.

Gender. There can be many reasons that explains why it took, on average, longer for females to apply acquired leadership skills on the job than it did for their male counterparts. One of the reasons could be that female IOLC graduates might have underreported their utilization of leadership skills on the job. A pattern of females underestimating their contributions has been evident in other studies. Conversely, male IOLC graduates might have over-reported their utilization of skills on the job. This overestimation would also be consistent with earlier works in a number of areas. Perhaps a lag in application of skills is more desirable if female IOLC graduates were overall more strategic and effective in the implementation of leadership skills on the job than their male counterparts were. A qualitative study might shed some light on the complex subject of male versus female skills utilization.

Staff/Line Officers. As indicated in some of the optional comments received by IOLC graduates serving as Staff Officers, the nature of their professions (Medical Doctors, Nurses, Dentists, etc.) does not present them with the opportunities to apply acquired leadership skills on the job as often as their counterparts serving as Line Officers. Generally, less specialization and more diversification of responsibility that leads to increased opportunity to employ acquired skills on the job. The Navy might consider whether a one-size-fits-all approach to leadership training is, in fact, wise.

Graduates' Job Positions. One of the reasons why IOLC graduates serving in positions as Department Heads and Assistance Department Heads took less time on average to apply acquired leadership skill on the job may be because they usually possess more authority and influence -- due to their higher rank and level of experience -- than do graduates serving as Division Officers. Generally, the higher the rank of the individual, the less resistance he or she receives while carrying out his or her duties. Division Officers are usually junior in rank and do not possess the requisite experience necessary to wield a large amount of informal influence with their supervisors and

subordinates. Hence, they may be reluctant to permit a great amount of discretion.

Positions Held by Graduates' Immediate Superiors. For many commands within the U.S. Navy, the position of Executive Officer (the second highest level) is the next higher level in the hierarchy from the department head level. Executive Officers rarely have the time to meddle in the affairs of their department heads and usually do not interfere with their leadership styles as long as the unit's mission is being accomplished. Therefore, it is reasonable to conclude that IOLC graduates serving as Department Heads have more discretion to run their departments with the leadership style(s) that they deem necessary and would be able to apply their newly acquired leadership skills on the job quicker than IOLC graduates serving in other capacities.

IOLC graduates serving in the lowest managerial level capacities for junior officers (branch officer, assistant division officer, etc.) are usually the most junior in rank among the officers assigned to their unit. Junior officers are more likely to meet a high degree of resistance from both their immediate superiors and from the senior enlisted leadership when attempting to apply acquired leadership skills on the job until they have established a degree of

credibility and trust. As their level of competence and experience increases, junior officers are provided with more latitude to experiment with an apply new skills learned on the job.

Recommendations to the U.S. Navy

The following recommendations are offered for the United States Navy:

1. Consider revising the Command Climate IOLC (Sub-unit 5-4) curriculum in a way that will enhance the IOLC graduates' ability to influence (in a positive way) the command climate back on the job more quickly.
2. Continue to reinforce the benefits of Navy Leadership Continuum training to fleet unit commanders (both sea, shore, and other) as well as to all active duty, reserve and TAR unit commanders in order to facilitate their continued support of the Naval Leadership Continuum and their encouragement of the use of acquired leadership skills on the job.
3. Incorporate into the IOLC curriculum strategies that will assist course participants with overcoming barriers such as resistance to change

from peers, self-resistance, and resistance from subordinates.

4. Establish a web site that contains applicable Navy Leadership Continuum reference material to serve as a refresher and keep IOLC graduates cognizant to any future changes and revisions in the Navy Leadership Continuum.

The results of this study will be provided to the Defense Technical Information Center (DTIC), the U.S. Navy's central Information Resource Library at Naval Training Center Millington, TN and, to the Navy Leadership Continuum Division, Naval Training and Education Center Pensacola, FL. The study will also be summarized to the Director and staff of the Navy Leadership Continuum Division, Pensacola FL and to the Director and staff of the Naval Leadership Training Unit, NAB Coronado, CA.

Recommendations for Future Research

The following are recommendations for further research that emerge from the study:

1. A similar study should be conducted for IOLC participants who graduated from the IOLC that is facilitated at NAB Little Creek, VA and participants who attended IOLC offered by the Navy

Leadership Continuum's Mobile Training Teams at various locations including Rota, Spain and Yokosuka, Japan etc. in order to determine whether the findings presented here generalize to graduates of other programs throughout the Continental United States and overseas.

2. A study should be conducted to ascertain why Staff Officers were able to utilize acquired leadership skills from the Situational Communications, Delegation and Command Climate sub-units sooner than their counterparts from the Line Officer Community.
3. A study to ascertain how often the various leadership skills were utilized on the job over a specified time frame should be conducted.
4. A survey asking IOLC participants to rank the 32 IOLC sub-units from the most useful to the least useful should be conducted in order to determine where to make curriculum improvements or deletions.
5. A qualitative study should investigate why it took longer, on average, for female IOLC graduates to apply acquired IOLC leadership skills on the job than it did for their male counterparts. This

study could encompass all 32 of the IOLC's applicable sub-units and determine whether there is any variation in gender usage across the remaining 28 sub-units. Any variation might help explain the impact of gender on skill usage.

6. A qualitative study should be conducted of IOLC graduates to ascertain what areas in the IOLC curriculum could be revised to render it more relevant to officers from both the Line and Staff Communities.

Summary

The results of the study indicate that graduates, on average, utilized acquired leadership skills on the job within six to eight weeks after completing IOLC. The incentives identified by IOLC graduates while attempting to apply acquired leadership skills on the job seem, for the most part, to have outweighed the barriers they encountered. The vast majority of IOLC graduates (over 89%) perceived that their immediate superiors were either encouraging the use of acquired leadership skills on the job or were taking a neutral stance. However, responses from IOLC graduates also revealed some evidence of resistance to leadership skills use on the job.

The responses varied, to some degree, by demographic (gender, race, line/staff officers, etc.) and contextual (IOLC curriculum, shore/sea duty, active duty/reserve component, etc.) variables. Notable differences in variation were evident between male and females and utilization of skills acquired from the Command Climate sub-unit.

References

Alreck, P. L., & Settle, R. B. (1995). The survey research handbook. (2nd ed.). Chicago: Irwin

Arnold, R. B. (1981). The effect of Leadership and Management Education and Training for U. S. Navy supervisory personnel on the attitude of subordinates toward supervisory leadership. (Doctoral dissertation, United States International University, 1981).

Ary, D., Jacobs, L. C., & Razavieh, A. (1996). Introduction to research in education. (5th ed.). Orlando, FL: Hardcourt Brace.

Babbie, E. (1990). Survey research methods. Belmont, CA: Wadsworth.

Belcher, J. (1996). Transformational Leaders: Meeting the Challenges of a Changing Society. (ERIC Document Reproduction Service No. ED 394-544).

Blake, R. R. & Mouton, J. S. (1963). " A 9.9 Approach for Increasing Organizational Productivity". In Bennis, W. G. Organizational Change. New York: Wiley.

Blake, R. R. & Mouton, J. S. (1964). The Managerial Grid, Houston: Gulf Publishing Co.

Blake, R. R. & Mouton, J. S. (1966). "Some Effects of Managerial Grid Seminar Training on Union and Management

Attitudes Toward Supervision. Journal of Applied Behavioral Science, 2:4, 387-400.

Blanchard, K. (1992). The Situational Leadership II, The Article. Escondido, CA: Center for Leadership Studies.

Brown, B. A. (1998). Responses to the Quality Mandate by the Non-Commissioned Officers at Hickam Air Force Base, Hawaii (United States Air Force, Military) (Doctoral dissertation, Walden University, 1998). Dissertation Abstracts International, 59-01A, 0543.

Brown, G., & Irby, B. J. (1995). The Preparation of Today's Educational Leaders: Inclusively of Women (Report No. EA 026 786). Paper presented at the Annual Meeting of the American Educational Research Association, San Francisco, CA: April 18-22, 1995. (ERIC Document Reproduction Service No. ED 384 104).

Chief of Naval Education and Training Intermediate Officer Leadership Course Student Guide, (1998). NAVEDTRA 38254-A, CIN P-7C-0023.

Chief of Naval Education and Training Intermediate Officer Leadership Course Instructor Guide, (1999). NAVEDTRA 38260, CIN P-7C-0023.

Chief of Naval Education and Training. (2000a). Leadership Continuum. Leadership Continuum. [On-line]. Available: http://www.cnet.navy.mil/leadcon.html

Chief of Naval Education and Training. (2000b). Thinking of coming to NLTU? NLTU-Coronado Homepage/Reporting Aboard [On-line], 1-2. Available: http://www.cnet.navy.mil/cnet/nltucor/prospect.html

Cissell, T. C. & Polley, D. P. (1987). Leadership and management education and training (LMET): its relationship to shipboard effectiveness and readiness (Master's thesis, Naval Postgraduate School, Monterey, CA 1987).

Deming, W. E. (1982). Out of the Crisis. Cambridge, MA: Massachusetts Institute of Technology.

Dillman, D. A. (1978). Mail and telephone surveys: the total design method. New York: Wiley.

Dillman, D. A. (2000). Mail and internet surveys: the tailored design method. (2nd. ed.). New York: Wiley & Sons.

Duncan-White, D. A. (1997). Evaluating the effectiveness of the U.S. Navy leadership continuum curricula (Master's thesis, U.S. Army Command and General Staff College, 1997).

Evans, T. J. (1996). Transformational Leadership: Overview of a Human Resources Administrative Practice (ERIC Document Reproduction Service No. ED 402 640)

Foley, P. G. (1983). From classroom to wardroom: internalizing, integrating and reinforcing leadership and management, education and training (LMET) skills in the navy (Master's thesis, Naval Postgraduate School, Monterey, CA 1983).

Fowler, F. J. (1993). Survey research methods. (2nd ed.). Newbury Park, CA: Sage.

Glenn, M. (1988). Senior management perceptions of actions to support post training utilization of leadership and management training and education (Doctoral dissertation, George Washington University, 1988).

Hersey, P. & Blanchard, K. H. (1993). Management of Organizational Behavior: Utilizing Human Resources, (6th ed.). Englewood Cliffs, NJ: Prentice Hall, 1993.

Huck, S. W., & Cormier, W. H. (1996). Reading Statistics and Research. (2nd ed.). New York: Harper-Collins.

Jantzi D. & Leithwood, K. A. (1995). Toward an Explanation of How Teachers' Perceptions of Transformational School Leadership are Formed. Paper presented at the Annual Meeting of the American Educational

Research Association, San Francisco, CA. (ERIC Document Reproduction Service No. ED 386 785).

Kirkpatrick, D. L. (1994). Evaluating Training Programs: The Four Levels San Francisco: Berrett-Koehler.

Kirkpatrick, D. L. (1998). Evaluating Training Programs: The Four Levels (2nd ed.). San Francisco: Berrett-Koehler.

Leithwood, K. A. (1992). Leadership. Educational Leadership 49 (5), 8.

Lewis, J. J. (1990). Naval Leadership: A Study of Views on Leadership Competencies and Methods to Reinforce Leadership Skills (Master's Thesis, Naval Post Graduate School, Monterey, CA, 1990.

Lohmeyer, T. N. (1999). Running Head: Curriculum influence of the navy intermediate officer leadership training course (Master's Thesis, San Diego State University, 1999).

Magnus, G.S. (Fall 1979, Winter 1980). "LMET the Change!!!!", The Navy Human Resource Management Journal

Mansfield, R. S. "A History of LMET," an unpublished draft prepared for McBer and Co., June 1982.

Naval Personnel Research and Development Center, (1992). Navy Personnel survey 1990: Analysis of educational and training issues. Technical Report No. 92-9.

Naval Training Systems Center, (1988) Training quality evaluation of the leadership and management education and training (LMET) leading petty officer course. Technical Report No. 88-014.

Neck, C. P. & Manz, C. C. (1996, September). Thought Self-Leadership: The Impact of Mental Strategies Training on Employee Cognition, Behavior, and Affect. Journal of Organizational Behavior, 17:5, 445-467.

Norsusis, M. J. (1999). SPSS 9.0 Guide to Data Analysis. Upper Saddle River, NJ: Prentice-Hall.

Norsusis, M. J. (2000). SPSS 10.0 Guide to Data Analysis. Upper Saddle River, NJ: Prentice-Hall.

Olmstead, J. A. (1980). Leadership Training: The State of the Art. (Report No. HumRRO-TR-80-2) Alexandria, VA: Human Resources Research Organization. Office of Naval Research.

Rea, L. M. & Parker, R. A. (1997). Designing and Conducting Survey Research San Francisco: Jossey-Bass.

Robbins, S. P. (1994). Management. (4th ed.). Englewood Cliffs: Prentice Hall.

Rossett, A. (1997). That was a great class, but… Training and Development, 51, 18-24.

Sudman, S., & Bradburn, N. M. (1982). Asking questions: A practical guide to questionnaire design. San Francisco: Jossey-Bass.

Thomas, T. A. (1998). The Impact of Training and Culture on Leadership Values and Perceptions at the United States Army Engineer School (Doctoral Dissertation, University of Missouri-Rolla, 1998).

United States Census (2000). U. S. Department of Labor 1995 survey: a test of methods for collecting racial and ethnic information [On-line]. Available: http://stats.bls.gov/news.release/ethnic.toc.htm,

United States Navy. (1993). Zero-Based Training and Education Review: Final Report. Washington, DC: Department of the Navy.

United States Navy message. Navy Leadership Continuum. From Chief of Naval Operations, Washington, D. C. NAVADMIN 196/98. Date time group

United States Navy Message. Navy Leadership Continuum Attendance Requirements. From Chief of Naval Operations, Washington, D.C. NAVADMIN 201/99. Date time group

Vandover, D. L. & Villarosa, J. P. (1981). Leadership and Management Education and Training (LMET) effectiveness: A pilot study for evaluation (Master's Thesis, Naval Postgraduate School, Monterey CA, 1981).

Wilcove, G. L. (1992). Navy Personnel Survey 1990: Analysis of Educational and Training Issues. Navy Personnel Research and Development Center, San Diego, CA. Report No. TN-92-9.

Winter, D. G. (1979). An Introduction to LMET Theory and Research Boston: McBer and Company.

(1985). Webster's ninth new collegiate dictionary Springfield, MA: Merriam-Webster.

(1991). Funk & Wagnalls standard dictionary New York: Harper-Collins.

APPENDIX A IOLC SUB-UNITS

UNIT 1 - FOUNDATIONS OF NAVAL LEADERSHIP

1-1 Deployment of U.S. Policy

1-2 Foundations of Leadership

1-3 Responsibility, Authority, and Accountability

1-4 Ethics and Core Values

1-5 Change

1-6 Leadership Models

1-7 Systems Theory

UNIT 2 - COMMUNICATIONS

2-1 Communication Concepts

2-2 Oral Communications

2-3 Written Communications

2-4 Situational Communications

2-5 Interpersonal Relationships

UNIT 3 - SUBORDINATE DEVELOPMENT

3-1 Motivation

3-2 Delegation

3-3 Evaluation and Counseling

3-4 Recognition

3-5 Personal and Professional Development

3-6 Mentoring

UNIT 4 - MANAGING SYSTEMS AND PROCESSES

4-1 Planning

4-2 Resource Management

4-3 Quality

4-4 Process Management

4-5 Process Improvement

4-6 Management of Teams

UNIT 5 - COMMAND ENVIRONMENT

5-1 Developing Command Unity

5-2 Quality of Life

5-3 Customs, Traditions, Honors, and Ceremonies

5-4 Command Climate

UNIT 6 - DECISION MAKING

6-1 Decision Making

6-2 Stress Management

6-3 Risk Management

UNIT 7 - COMBAT/CRISIS LEADERSHIP

7-1 Combat/Crisis Leadership

(Chief of Naval Education and Training, 1999, p. ix-x).

APPENDIX B SURVEY INSTRUMENT

Intermediate Officer Leadership Course Survey

Part I

The following questions apply to **Lesson 1-6, Leadership Models - transformational leadership** (utilizes motivation, encouragement and leading by example while using inputs from the collective group); **transactional leadership** (involves "buying" compliance by providing immediate tangible rewards to those who follow orders); and, **situational leadership** (utilization of multiple leadership styles **(that were depicted on the wall chart in the IOLC classroom)** depending on the follower that they are working with and on the situation, e.g. **Directing (S1)** - high task, low relationship; **Coaching (S2)** - high task, high relationship; **Supporting (S3)** - low task, high relationship; and, **Delegating (S4)** - low task, low relationship).

1A. After training I used the leadership models I learned in the class. **Circle your response.**

(a) Within _____days/weeks/months **(fill in the blank with a number and circle either days/weeks/months)**
(b) Have not used yet

1B. I have encountered the following barriers when trying to utilize the leadership models learned during IOLC training. **Circle all applicable letters.**

(a) My immediate superior doesn't support
(b) Resistance to change (self)
(c) Resistance to change (peers)
(d) Resistance to change (subordinates)
(e) The ideas don't seem to work
(f) Didn't learn anything new
(g) Don't recall content
(h) I have encountered no barriers
(i) Other (please specify) _____

1C. I have encountered the following incentives that encouraged me to utilize the leadership models learned during IOLC training. **Circle all applicable letters.**

(a) My immediate superior is supportive
(b) Command rewards via praise and recognition
(c) My immediate superior monitors my leadership performance and provides constructive feedback
(d) My immediate superior sets a proper example
(e) I have been assigned a mentor
(f) Open lines of communication with my immediate superior
(g) Open lines of communications with subordinates
(h) Receptiveness from subordinates
(i) The leadership models worked when used
(j) I have encountered no incentives
(k) Other (please specify) _____
_____
_____

Intermediate Officer Leadership Course Survey

Part II

The following questions apply to **Lesson 2-4, Situational Communications**. This sub-unit focused on the best methods and styles of communication that must be adjusted to fit the situation, which includes, but is not limited to, formal or informal counseling of a subordinate and interacting with a superior. This lesson also included a class exercise which consisted of IOLC students sharing their personal experiences of communicating with juniors. IOLC students were also asked to identify the situation as either formal or informal, or stressful or normal.

2A. After training I used the situational communications skills that I learned in the class. **Circle your response.**

(a) Within _____ days/weeks/months **(fill in the blank with a number and circle either days/weeks/months)**
(b) Have not used yet

2B. I have encountered the following barriers when trying to utilize the situational communications skills learned during IOLC training. **Circle all applicable letters.**

(a) My immediate superior doesn't support
(b) Resistance to change (self)
(c) Resistance to change (peers)
(d) Resistance to change (subordinates)
(e) The ideas don't seem to work
(f) Didn't learn anything new
(g) Don't recall content
(h) I have encountered no barriers
(i) Other (please specify) _____

2C. I have encountered the following incentives that encouraged me to utilize the situational communications skills learned during IOLC training. **Circle all applicable letters.**

(a) My immediate superior is supportive
(b) Command rewards via praise and recognition
(c) My immediate superior monitors my leadership performance and provides constructive feedback
(d) My immediate superior sets a proper example
(e) I have been assigned a mentor
(f) Open lines of communication with my immediate superior
(g) Open lines of communications with subordinates
(h) Receptiveness from subordinates
(i) The leadership models worked when used
(j) I have encountered no incentives
(k) Other (please specify) _____
_____
_____

Intermediate Officer Leadership Course Survey

Part III

The following questions apply to **Lesson 3-2, Delegation.** This sub-unit discussed the concept of delegation, what to delegate, when to delegate, and how it should be done. How a Department Head uses delegation for subordinate development and empowerment was also discussed.

3A. After returning from training I used the delegation skills that I learned in the class. **Circle your response.**

(a) Within _____ days/weeks/months **(fill in the blank with a number and circle either days/weeks/months)**
(b) Have not used yet

3B. I have encountered the following barriers when trying to utilize the delegation skills learned during IOLC training. **Circle all applicable letters.**

(a) My immediate superior doesn't support
(b) Resistance to change (self)
(c) Resistance to change (peers)
(d) Resistance to change (subordinates)
(e) The ideas don't seem to work
(f) Didn't learn anything new
(g) Don't recall content
(h) I have encountered no barriers
(i) Other (please specify) _____

3C. I have encountered the following incentives that encouraged me to utilize the delegation skills learned during IOLC training. **Circle all applicable letters.**

(a) My immediate superior is supportive
(b) Command rewards via praise and recognition
(c) My immediate superior monitors my leadership performance and provides constructive feedback
(d) My immediate superior sets a proper example
(e) I have been assigned a mentor
(f) Open lines of communication with my immediate superior
(g) Open lines of communications with subordinates
(h) Receptiveness from subordinates
(i) The leadership models worked when used
(j) I have encountered no incentives
(k) Other (please specify) _____
_____
_____

Intermediate Officer Leadership Course Survey

Part IV

The following questions apply to **Lesson 5-4, Command Climate.** This sub-unit discussed the concepts and behaviors that form a command's climate, and the ways we may affect the underlying culture beneath that supports the command's climate. The following components of a command's culture were discussed during IOLC training: organizational structure; command philosophy; people; and, command plans, policies, and operating procedures. Methods of assessing command climate include examining records and reports, observing behavior, interviewing individuals and groups, and through command assessment surveys.

4A. After training I used the skills that I learned in the class. **Circle your response.**

(a) Within _____ days/weeks/months **(fill in the blank with a number and circle either days/weeks/months)**
(b) Have not used yet

4B. I have encountered the following barriers when trying to utilize the skills learned during IOLC training. **Circle all applicable letters.**

(a) My immediate superior doesn't support
(b) Resistance to change (self)
(c) Resistance to change (peers)
(d) Resistance to change (subordinates)
(e) The ideas don't seem to work
(f) Didn't learn anything new
(g) Don't recall content
(h) I have encountered no barriers
(i) Other (please specify) _____

4C. I have encountered the following incentives that encouraged me to utilize the leadership skills learned during IOLC training. **Circle all applicable letters.**

(a) My immediate superior is supportive
(b) Command rewards via praise and recognition
(c) My immediate superior monitors my leadership performance and provides constructive feedback
(d) My immediate superior sets a proper example
(e) I have been assigned a mentor
(f) Open lines of communication with my immediate superior
(g) Open lines of communications with subordinates
(h) Receptiveness from subordinates
(i) The leadership models worked when used
(j) I have encountered no incentives
(k) Other (please specify) _____
_____
_____

Intermediate Officer Leadership Course Survey

Part V

5. Please indicate your perception of how your immediate superior would view your utilization of the acquired leadership skills used on the job. **Circle the letter next to the most appropriate answer.**

   (a) **Preventing:** The boss forbids me from doing what I have been taught to do during IOLC.
   (b) **Discouraging:** The boss doesn't say, "You can't do it," but he or she makes it clear that I should not change my behavior because it would make him or her unhappy. Or, the boss doesn't model the behavior taught during IOLC, and this negative example discourages me from changing.
   (c) **Neutral:** My boss doesn't care what leadership style I use as long as the job gets done.
   (d) **Encouraging:** The boss encourages me to learn and apply my learning on the job.
   (e) **Requiring:** The boss knows what I learned during IOLC and makes sure that the leadership skills I learned transfer to the job.

6. The skills-related resources that were used in the class are available for use on the job (e.g., reference manuals and books on Leadership such as The Sit Lead II, the article and Leadership and the One-Minute Manager by K. H. Blanchard; The Transformational Leader by N. M. Tichy and M. A. Devanna; The 7 Habits of Highly Effective People by S. R. Covey, etc.) **Circle your response.**

   (a) yes
   (b) no

Intermediate Officer Leadership Course Survey

Part VI

Demographics - The responses to the following demographic questions will be used to compare respondents from the types of duty and positions held that could assist curriculum developers with determining where to concentrate their improvement efforts.

7. The position you presently hold in your command? **Circle your response.**

   (a) Director
   (b) Department Head
   (c) Asst. Department Head
   (d) Division Officer
   (e) Other (please specify) _____

8. The position your immediate superior presently holds in your command? **Circle your response.**

   (a) Executive Officer
   (b) Department Head
   (c) Asst. Department Head
   (d) Division Officer
   (e) Other (please specify) _____

9. Indicate the type of duty you have served since graduating from IOLC. **If more than one response applies, choose the type of duty where you spent the majority of your time.**

   (a) Shore duty
   (b) Sea duty
   (c) Other (please specify) _____

10. Are you a line or staff officer? **Circle your response.**

   (a) Line
   (b) Staff

11. If you are a Line Officer please indicate what community you are presently serving in. **Circle your response.**

(a) Unrestricted line
(b) Unrestricted line, limited duty officer
(c) Restricted line, Aerospace Maintenance Duty
(d) Restricted line, Aerospace Engineering Duty
(e) Restricted line, Oceanography
(f) Restricted line, Intelligence
(g) Restricted line, Public Affairs
(h) Other (please specify) _____

12. If you are a Staff Officer please indicate what community you are presently serving in. **Circle your response.**

(a) Supply
(b) Medical
(c) Dental
(d) Medical Service Corps
(e) Nurse Corps
(f) Judge Advocate General
(g) Civil Engineering Corps
(h) Limited duty officer
(i) Chaplain Corps
(j) Other (please specify) _____

13. Indicate your status since graduating from IOLC. **Circle your response.**

(a) Active duty
(b) Selected Reservist
(c) Training and Administration of Reserves (TAR)
(d) Other (please specify)_____

14. What is your gender? **Circle your response.**

(a) male
(b) female

15. Indicate approximately how long you have been assigned to your present command.

___ days/weeks/months/years **(fill in the number and circle either days/weeks/months/years)**

The following question is to determine the race/ethnic classification of the respondent and is structured as per the standard Department of Defense (DOD) Race/Ethnic categories for demographic reporting (http://www.bupers.navy.mil/mentor/demo_class.htm).

16. What is your race/ethnic background? **Circle your responses.**

RACE
C = Caucasian or White
M = Asian or Pacific Islander
N = Black or African American
R = American Indian or Alaska Native
X = Other
Z = Unknown

ETHNIC
1 = Spanish Descent
2 = American Indian
3 = Asian American
4 = Puerto Rican
5 = Filipino
6 = Mexican American
7 = Eskimo
8 = Aleut
9 = Cuban American
D = Indian
E = Melanesian
G = Chinese
J = Japanese
K = Korean
L = Polynesian
Q = Other Pacific Island Descent
S = Latin American with Hispanic Descent
V = Vietnamese
W = Micronesian
X = Other
Y = None
Z = Unknown

Optional Comments

THANK YOU!

APPENDIX C PRE-NOTICE LETTER

8371 Holt St.
Spring Valley, CA 91977

December 7, 2000

Dear Intermediate Officer Leadership Course Graduate

A few days from now you will receive in the mail a request to fill out a brief questionnaire for an important research project that I am conducting as a graduate student from the University of San Diego.

The questionnaire is designed to obtain the perceptions of graduates of the Navy Leadership Continuum's Intermediate Officer Leadership Course (IOLC) about opportunities to use skills learned during IOLC training and back on the job and whether the work environment encourages the use of these skills.

I am writing in advance of your receiving this questionnaire to encourage you to respond to it. The study is an important one because the findings will be shared with key decision-makers who have the power to make any changes in the Navy's leadership training effort that might be warranted.

Thank you for your time and consideration. It is only with the generous assistance from people like you that useful feedback can be gathered.

Sincerely,

William F. Conroy III

APPENDIX D FIRST COVER LETTER

8371 Holt St.
Spring Valley, CA 91977

15 December, 2000

Dear Intermediate Officer Leadership Course Graduate,

I am a graduate student with the University of San Diego's School of Education. I am conducting a survey in order to gain data on current utilization of skills learned during IOLC training and to ascertain if your command's environment is conducive to allowing those skills to be utilized on the job. The Chief of Naval Education and Training (Captain Krull, USN) has granted me written authorization to conduct the study (see enclosed letter Serial Number LEAD12/0150 dated 27 Nov 00).

Your name was randomly selected from a list of all graduates from 2 July 1999 to 30 June 2000. Participation is strictly voluntary and you will not be jeopardized in any way if you choose not to respond to the attached questionnaire. However, if you choose to do so, responding to the questionnaire should take less than 20 minutes of your time. Your feedback will support graduate level research that could lead to curriculum improvement efforts. Thank you for completing the questionnaire and returning it in the postage-paid, preaddressed envelope provided.

Your response will remain completely confidential. You will note a number on your survey form. This number will be used only for the graduate researcher to determine who has responded to the survey and who may require reminder letters. Only the graduate researcher will be able to link your responses with your name.

If you have questions about the study, please contact the graduate researcher, LT William F. Conroy III at (619) 545-1802, Defense Switching Network (DSN): 735-1802, wconroy@chtwp.nasni.navy.mil. Your assistance is greatly appreciated.

Sincerely,

William F. Conroy III

APPENDIX E SECOND COVER LETTER

January 5, 2001

Dear Intermediate Officer Leadership Course Graduate,

I am writing to ask your help in a study of ascertaining the perceptions of graduates of the Navy Leadership Continuum's Intermediate Officer Leadership Course (IOLC) on their utilization of acquired leadership skills and their perceptions if their environment is conducive to allowing the use of those skills back on the job.

Results from the survey will be used for consideration for future curriculum improvement efforts and to convey to the Chief of Naval Education and Training what the prevailing attitudes are among the U.S. Navy's senior management.

Your answers are completely confidential and will be released only as summaries in which no individual's answers can be identified. When you return your completed questionnaire, your name will be deleted from the mailing list and never connected to your answers in any way. This survey is voluntary. However, you can help me very much by taking a few minutes to share your opinions accordingly. If for some reason you prefer not to respond, please let me know by returning the blank questionnaire in the enclosed stamped envelope.

If you have any questions or comments about this study, you can write to me (the researcher) at the above address, call via DSN: 735-1802 or e-mail at either wconroy@chtwp.nasni.navy.mil or romigcon3@earthlink.net.

Thank you very much for helping with this important study.

Sincerely,

William F. Conroy III

APPENDIX F SURVEY ITEM RESPONSE FREQUENCIES

Intermediate Officer Leadership Course Survey

Part I

1A. After training I used the leadership models I learned in class within:

# Days	Frequency	Percent	Valid Percent	Cumulative Percent
1	10	3.8	4.5	4.5
2	5	1.9	2.3	6.8
3	4	1.5	1.8	8.6
5	6	2.3	2.7	11.3
6	4	1.5	1.8	13.1
7	18	6.8	8.1	21.2
9	1	.4	.5	21.6
10	1	.4	.5	22.1
14	39	14.8	17.6	39.6
15	1	.4	.5	40.1
20	1	.4	.5	40.5
21	15	5.7	6.8	47.3
28	10	3.8	4.5	51.8
30	37	14.0	16.7	68.5
35	1	.4	.5	68.9
40	1	.4	.5	69.4
42	3	1.1	1.4	70.7
45	1	.4	.5	71.2
56	1	.4	.5	71.6
60	25	9.5	11.3	82.9
75	1	.4	.5	83.3
90	14	5.3	6.3	89.6
112	1	.4	.5	90.1
120	5	1.9	2.3	92.3
150	4	1.5	1.8	94.1
165	1	.4	.5	94.6
180	8	3.0	3.6	98.2
270	2	.8	.9	99.1
365	2	.8	.9	100.0
SUB-TOTAL	222	84.1	100.0	
MISSING	42	15.9		
TOTAL	264	100.0		

1B. I have encountered the following barriers when trying to utilize the leadership models learned during IOLC training. **Multiple responses.**

	Freq.	Percent
My immediate superior doesn't support	40	15.2
Resistance to change (self)	45	17.0
Resistance to change (peers)	61	23.1
Resistance to change (subordinates)	77	29.2
The ideas don't seem to work	7	2.7
Didn't learn anything new	23	8.7
Don't recall content	26	9.8
I have encountered no barriers	90	34.1
Other (please specify)	31	11.7

1C. I have encountered the following incentives that encouraged me to utilize the leadership models learned during IOLC training. **Multiple Response.**

	Freq.	Percent
My immediate superior is supportive	91	34.5
Command rewards via praise and recognition	44	16.7
My immediate superior monitors my leadership performance and provides constructive feedback	36	13.6
My immediate superior sets a proper example	72	27.3
I have been assigned a mentor	18	6.8
Open lines of communication with my immediate superior	106	40.2
Open lines of communications with subordinates	145	54.9
Receptiveness from subordinates	94	35.6
The leadership models worked when used	69	26.1
I have encountered no incentives	50	18.9
Other	15	5.7

Intermediate Officer Leadership Course Survey
Part II

2A. After training I used the situational communications skills that I learned in class within:

# Days	Frequency	Valid Percent	Cumulative Percent	Percent
1	9	3.4	4.1	4.1
2	2	.8	.9	5.1
3	3	1.1	1.4	6.5
4	1	.4	.5	6.9
5	4	1.5	1.8	8.8
6	5	1.9	2.3	11.1
7	23	8.7	10.6	21.7
9	1	.4	.5	22.1
10	1	.4	.5	22.6
11	1	.4	.5	23.0
14	35	13.3	16.1	39.2
15	1	.4	.5	39.6
20	1	.4	.5	40.1
21	13	4.9	6.0	46.1
24	1	.4	.5	46.5
28	9	3.4	4.1	50.7
30	35	13.3	16.1	66.8
40	1	.4	.5	67.3
42	4	1.5	1.8	69.1
56	2	.8	.9	70.0
60	32	12.1	14.7	84.8
75	2	.8	.9	85.7
90	12	4.5	5.5	91.2
105	1	.4	.5	91.7
112	1	.4	.5	92.2
120	4	1.5	1.8	94.0
150	1	.4	.5	94.5
165	1	.4	.5	94.9
180	8	3.0	3.7	98.6
270	2	.8	.9	99.5
300	1	.4	.5	100.0
SUB-TOTAL	217	82.2	100.0	
MISSING	47	17.8		
TOTAL	264	100.0		

2B. I have encountered the following barriers when trying to utilize the situational communications skills learned during IOLC training. **Multiple responses.**

	Freq.	Percent
My immediate superior doesn't support	13	4.9
Resistance to change (self)	27	10.2
Resistance to change (peers)	39	14.8
Resistance to change (subordinates)	48	18.2
The ideas don't seem to work	1	.3
Didn't learn anything new	28	10.6
Don't recall content	30	11.4
I have encountered no barriers	136	51.5
Other (please specify)	7	2.7

2C. I have encountered the following incentives that encouraged me to utilize the situational communications skills learned during IOLC training.

Circle all applicable letters.

	Freq.	Percent
My immediate superior is supportive	85	32.2
Command rewards via praise and recognition	32	12.1
My immediate superior monitors my leadership performance and provides constructive feedback	37	14.0
My immediate superior sets a proper example	54	20.5
I have been assigned a mentor	11	4.2
Open lines of communication with my immediate superior	99	37.5
Open lines of communications with subordinates	131	49.6
Receptiveness from subordinates	87	33.0
The leadership models worked when used	69	26.1
I have encountered no incentives	57	21.6
Other	13	4.9

Intermediate Officer Leadership Course Survey

Part III

3A. After returning from training I used the delegation skills that I learned in class within:

# Days	Frequency	Percent	Valid Percent	Cumulative Percent
1	19	7.2	8.3	8.3
2	7	2.7	3.0	11.3
3	5	1.9	2.2	13.5
5	4	1.5	1.7	15.2
6	3	1.1	1.3	16.5
7	20	7.6	8.7	25.2
9	1	.4	.4	25.7
11	1	.4	.4	26.1
14	36	13.6	15.7	41.7
15	1	.4	.4	42.2
20	1	.4	.4	42.6
21	14	5.3	6.1	48.7
22	1	.4	.4	49.1
25	1	.4	.4	49.6
28	8	3.0	3.5	53.0
30	36	13.6	15.7	68.7
35	3	1.1	1.3	70.0
40	1	.4	.4	70.4
42	1	.4	.4	70.9
60	20	7.6	8.7	79.6
75	1	.4	.4	80.0
90	19	7.2	8.3	88.3
112	1	.4	.4	88.7
120	7	2.7	3.0	91.7
150	1	.4	.4	92.2
165	1	.4	.4	92.6
180	9	3.4	3.9	96.5
240	1	.4	.4	97.0
270	3	1.1	1.3	98.3
365	3	1.1	1.3	99.6
395	1	.4	.4	100.0
SUB-TOTAL	230	87.1	100.0	
MISSING	34	12.9		
TOTAL	264	100.0		

3B. I have encountered the following barriers when trying to utilize the delegation skills learned during IOLC training. **Multiple Answers.**

	Freq.	Percent
My immediate superior doesn't support	13	4.9
Resistance to change (self)	41	15.5
Resistance to change (peers)	35	13.3
Resistance to change (subordinates)	65	24.6
The ideas don't seem to work	7	2.7
Didn't learn anything new	23	8.7
Don't recall content	14	5.3
I have encountered no barriers	113	42.8
Other (please specify)	18	6.8

3C. I have encountered the following incentives that encouraged me to utilize the delegation skills learned during IOLC training. **Multiple Responses.**

	Freq.	Percent
My immediate superior is supportive	89	33.7
Command rewards via praise and recognition	30	11.4
My immediate superior monitors my leadership performance and provides constructive feedback	44	16.7
My immediate superior sets a proper example	65	24.6
I have been assigned a mentor	11	4.2
Open lines of communication with my immediate superior	85	32.2
Open lines of communications with subordinates	130	49.2
Receptiveness from subordinates	99	37.5
The leadership models worked when used	78	29.5
I have encountered no incentives	49	18.6
Other	15	5.7

Intermediate Officer Leadership Course Survey

Part IV

4A. After training I used the skills that I learned in class within:

# Days	Frequency	Percent	Valid Percent	Cumulative Percent
1	10	3.8	5.8	5.8
2	4	1.5	2.3	8.1
3	3	1.1	1.7	9.8
5	3	1.1	1.7	11.6
6	2	.8	1.2	12.7
7	13	4.9	7.5	20.2
9	1	.4	.6	20.8
10	2	.8	1.2	22.0
14	23	8.7	13.3	35.3
15	1	.4	.6	35.8
17	1	.4	.6	36.4
20	1	.4	.6	37.0
21	6	2.3	3.5	40.5
25	1	.4	.6	41.0
28	5	1.9	2.9	43.9
30	30	11.4	17.3	61.3
40	1	.4	.6	61.8
42	2	.8	1.2	63.0
45	2	.8	1.2	64.2
49	1	.4	.6	64.7
60	26	9.8	15.0	79.8
90	13	4.9	7.5	87.3
112	1	.4	.6	87.9
120	3	1.1	1.7	89.6
165	1	.4	.6	90.2
180	11	4.2	6.4	96.5
240	2	.8	1.2	97.7
270	1	.4	.6	98.3
365	2	.8	1.2	99.4
730	1	.4	.6	100.0
SUB-TOTAL	173	65.5	100.0	
MISSING	91	34.5		
TOTAL	264	100.0		

4B. I have encountered the following barriers when trying to utilize the skills learned during IOLC training. **Multiple responses.**

	Freq.	Percent
My immediate superior doesn't support	31	11.7
Resistance to change (self)	22	8.3
Resistance to change (peers)	48	18.2
Resistance to change (subordinates)	39	14.8
The ideas don't seem to work	9	3.4
Didn't learn anything new	19	7.2
Don't recall content	37	14.0
I have encountered no barriers	100	37.9
Other (please specify)	30	11.4

4C. I have encountered the following incentives that encouraged me to utilize the leadership skills learned during IOLC training. **Multiple responses.**

	Freq.	Percent
My immediate superior is supportive	66	25.0
Command rewards via praise and recognition	36	13.6
My immediate superior monitors my leadership performance and provides constructive feedback	27	10.2
My immediate superior sets a proper example	53	20.1
I have been assigned a mentor	12	4.5
Open lines of communication with my immediate superior	77	29.2
Open lines of communications with subordinates	91	34.5
Receptiveness from subordinates	60	22.7
The leadership models worked when used	42	15.9
I have encountered no incentives	105	39.8
Other	27	10.2

Intermediate Officer Leadership Course Survey

Part V

5. Please indicate your perception of how your immediate superior would view your utilization of the acquired leadership skills used on the job.

	Freq.	Percent	Cumulative Percent
Preventing	3	1.1	1.1
Discouraging	18	6.8	8.0
Neutral	127	48.1	56.1
Encouraging	109	41.3	97.3
Requiring	7	2.7	100.0
Total	264	100.0	

6. The skills-related resources that were used in the class are available for use on the job (e.g., reference manuals and books on Leadership such as The Sit Lead II, the article and Leadership and the One-Minute Manager by K. H. Blanchard; The Transformational Leader by N. M. Tichy and M. A. Devanna; The 7 Habits of Highly Effective People by S. R. Covey, etc.)

	Freq.	Percent	Cumulative Percent
Yes	103	39.0	39.0
No	161	61.0	100.0

Intermediate Officer Leadership Course Survey

Part VI

Demographics - The responses to the following demographic questions will be used to compare respondents from the types of duty and positions held that could assist curriculum developers with determining where to concentrate their improvement efforts.

7. The position you presently hold in your command?

	Freq.	Percent	Cumulative Percent
Director	9	3.4	3.4
Department Head	67	25.4	28.8
Asst. Department Head	25	9.5	38.3
Division Officer	69	26.1	64.4
Other (Officer-in-Charge, Asst. Director Executive Officer, etc.)	94	35.6	100.0

8. The position your immediate superior presently holds in your command?

	Freq.	Percent	Cumulative Percent
Executive Officer	51	19.3	19.3
Department Head	113	42.8	62.1
Asst. Department Head	13	4.9	67.0
Division Officer	22	8.3	75.4
Other (Officer-in-Charge, Director, Commanding Officer, etc.)	65	24.6	100.0

9. Indicate the type of duty you have served since graduating from IOLC.

	Freq.	Percent	Cumulative Percent
Shore duty	184	69.7	69.7
Sea duty	54	20.5	90.2
Other (overseas, neutral, etc.)	26	9.8	100.0

10. Are you a line or staff officer?

	Freq.	Percent	Cumulative Percent
Line	74	28.0	28.0
Staff	190	72.0	100.0

11. If you are a Line Officer please indicate what community you are presently serving in.

	Freq.	Percent	Cumulative Percent
Unrestricted line	41	15.5	15.5
Unrestricted line, limited duty officer	6	2.3	17.8
Restricted line, Aerospace Maintenance	4	1.5	19.3
Restricted line, Aerospace Engineering	1	.4	19.7
Restricted line, Oceanography	10	3.8	23.5
Restricted line, Intelligence	4	1.5	25.0
Restricted line, Public Affairs	4	1.5	26.5
Other	4	1.5	28.0
Sub-total	74	28.0	28.0
Missing (Staff)	190	72.0	100.0
Total	264	100.0	

12. If you are a Staff Officer please indicate what community you are presently serving in.

	Freq.	Percent	Cumulative Percent
Supply	4	1.5	1.5
Medical	45	17.0	46.5
Dental	9	3.4	49.9
Medical Service Corps	47	17.8	67.7
Nurse Corps	45	17.0	84.7
Judge Advocate General	4	1.5	86.2
Civil Engineering Corps	21	8.0	94.2
Chaplain Corps	15	5.7	100.0
Sub-total	190	72.0	72.0
Missing (Line Officers)	74	28.0	100.0
Total	264	100.0	

13. Indicate your status since graduating from IOLC.

	Freq.	Percent	Cumulative Percent
Active duty	228	86.4	86.4
Selective Reservist	32	12.1	98.5
Training and Administration of Reserves (TAR)	4	1.5	100.0

14. What is your gender?

	Freq.	Percent	Cumulative Percent
Male	188	71.2	71.2
Female	76	28.8	100.0

15. Indicate approximately how long you have been assigned to your present command.

# Days	Frequency	Percent	Cumulative Percent
60	1	.4	.4
90	4	1.5	1.9
120	3	1.1	3.0
150	7	2.7	5.7
180	29	11.0	16.7
210	15	5.7	22.3
240	14	5.3	27.7
270	14	5.3	33.0
300	8	3.0	36.0
330	1	.4	36.4
334	1	.4	36.7
335	4	1.5	38.3
365	46	17.4	55.7
385	1	.4	56.1
395	1	.4	56.4
425	5	1.9	58.3
454	1	.4	58.7
455	14	5.3	64.0
475	1	.4	64.4
485	16	6.1	70.5
505	2	.8	71.2
515	3	1.1	72.3
535	30	11.4	83.7
545	1	.4	84.1
565	1	.4	84.5
575	1	.4	84.8
605	1	.4	85.2
730	10	3.8	89.0
790	2	.8	89.8
820	1	.4	90.2
910	1	.4	90.5
1085	1	.4	90.9
1095	9	3.4	94.3
1400	1	.4	94.7
1460	2	.8	95.5
1687	1	.4	95.8
1824	1	.4	96.2
1825	4	1.5	97.7
2190	3	1.1	98.9
2920	1	.4	99.2
3650	2	.8	100.0
Total	264	100.0	

16. What is your race/ethnic background?

	Frequency	Percent	Cumulative Percent
Race			
Caucasian	206	78.0	78.0
Asian or Pacific Islander	17	6.4	84.5
Black or African American	14	5.3	89.8
Hispanic	8	3.0	92.8
American Indian or Alaskan Native	6	2.3	95.1
Other	4	1.5	96.6
Unknown	9	3.4	100.0
Total	264	100.0	

	Frequency	Percent	Cumulative Percent
Ethnicity			
Spanish Descent	1	.4	.4
American Indian	5	1.9	2.3
Asian American	4	1.5	3.8
Puerto Rican	2	.8	4.5
Filipino	6	2.3	6.8
Mexican American	3	1.1	8.0
Eskimo	1	.4	8.3
Cuban American	2	.8	9.1
Indian	1	.4	9.5
Chinese	2	.8	10.2
Korean	3	1.1	11.4
Other Pacific Island Descent	1	.4	11.7
Latin American with Hispanic Decent	1	.4	12.1
Vietnamese	1	.4	12.5
Other	84	31.8	44.3
None	33	12.5	56.8
Unknown	114	43.2	100.0
Total	264	100.0	

APPENDIX G TENTATIVE STATISTICALLY SIGNIFICANT FINDINGS

Table G1
Comparison Between LSD and Scheffe Post Hoc Tests for a One-Way ANOVA Result of IOLC Graduates' Perceptions of Their Immediate Superiors' Attitudes Regarding Their Use of Acquired Leadership Models Skills on the Job

BOSSES' PERCEPTION	LSD	SCHEFFE
Encouraging vs. Discouraging	.010**	.156
Neutral vs. Encouraging	.030**	.313

**p< .05

Table G2
Comparison Between a LSD and a Scheffe Post Hoc Tests for a One-Way ANOVA Result of IOLC Graduates' Use of Acquired Command Climate Skills on the Job Compared to Positions Held by Their Immediate Superiors

BOSSES' JOB TITLE	LSD	SCHEFFE
Department Heads compared to Division Officers	.003**	.063
Assistant Department Heads Compared to Division Officers	.026**	.288

**p< .05

Table G3
Comparison Between LSD and Scheffe Post Hoc Tests for a One-Way ANOVA Result of Incentives Identified by IOLC Graduates While Attempting to Apply Leadership Model(s) Skills on the JOB (Immediate Superiors' Perceptions)

BOSSES' PERCEPTION	LSD	SCHEFFE
Discouraging compared to Encouraging	.039**	.370

**p< .05

Table G4
Comparison Between LSD and Scheffe Post Hoc Tests for a One-Way ANOVA Result of Incentives Identified by IOLC Graduates While Attempting to Apply Situational Communications Skills on the Job (Immediate Superiors' Perceptions)

BOSSES' PERCEPTION	LSD	SCHEFFE
Requiring compared to Preventing	.019**	.239
Neutral compared to Encouraging	.030**	.315

**p< .05

Table G5
Comparison Between LSD and Scheffe Post Hoc Tests for a One-Way ANOVA Result of Incentives Identified by IOLC Graduates While Attempting to Apply Delegation Skills on the Job (Immediate Superiors' Perceptions)

BOSSES' PERCEPTION	LSD	SCHEFFE
Requiring compared to Preventing	.019**	.236
Requiring compared to Encouraging	.002**	.055

**p< .05

Table G6
Comparison Between LSD and Scheffe Post Hoc Tests for a One-Way ANOVA Result of Incentives Identified by IOLC Graduates While Attempting to Apply Command Climate Skills on the Job (Immediate Superiors' Perceptions)

BOSSES' PERCEPTION	LSD	SCHEFFE
Requiring compared to Preventing	.010**	.152
Neutral compared to Encouraging	.008**	.134

**p< .05